IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
APPLICATION FOR UNITED STATES LETTERS PATENT

INVENTOR: Harry Gottlieb

TITLE: Methods for Identifying Cells in a Path in
                             a Flowchart and for Synchronizing
                             Graphical and Textual Views of a
                             Flowchart

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Methods for Identifying Cells in a Path in a Flowchart and for Synchronizing Graphical and Textual Views of a Flowchart

Reference to Computer Program Listing Appendix

5   This application contains one compact disc submitted in duplicate. The material on that compact disc is hereby incorporated by reference. The following is a listing of the names of the files on the compact disc, their dates of creation, and their sizes in bytes.

Volume in drive F is 011228_1335

10   Volume Serial Number is 7635-063B

Directory of F:\Send\docs

12/28/2001	01:37p	1,420 ReadMe.txt
12/28/2001	12:51p	2,663 TWiki _ Lab _ AudioMoment.mht
12/28/2001	12:51p	3,118 TWiki _ Lab _ AudioVersion.mht
12/28/2001	12:51p	25,715 TWiki _ Lab _ ConditionCell.mht
12/28/2001	12:51p	3,386 TWiki _ Lab _ CueCard.mht
12/28/2001	12:51p	15,237 TWiki _ Lab _ DialogueCell.mht
12/28/2001	12:51p	17,114 TWiki _ Lab _ FlowchartScriptWindow.mht
12/28/2001	12:51p	4,093 TWiki _ Lab _ GotoCell.mht
12/28/2001	12:51p	31,354 TWiki _ Lab _ MediaWindow.mht
12/28/2001	12:51p	4,713 TWiki _ Lab _ PlaybackWindow.mht
12/28/2001	01:31p	4,239 TWiki _ Lab _ UberToolManual.mht

25   11 File(s)   113,052 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7

12/28/2001	12:51p	19,004 aclocal.m4
12/28/2001	12:51p	860 AUTHORS

12/28/2001 12:51p	1,747	autogen.sh
12/28/2001 12:51p	5,424	ChangeLog
12/28/2001 12:51p	3,780	config.cache
12/28/2001 12:51p	32,349	config.guess
12/28/2001 12:51p	16,295	config.log
12/28/2001 12:51p	1,295	Config.mk.linux.i386
12/28/2001 12:51p	1,269	Config.mk.sgi.mips3
12/28/2001 12:51p	19,637	config.status
12/28/2001 12:51p	25,767	config.sub
12/28/2001 12:51p	162,205	CONFIGURE
12/28/2001 12:51p	16,756	configure.in
12/28/2001 12:51p	20,205	COPYING
12/28/2001 12:51p	2,548	FAQ.txt
12/28/2001 12:51p	10,967	graphviz.spec
12/28/2001 12:51p	10,929	graphviz.spec.in
12/28/2001 12:51p	3,127	gvconfig.h
12/28/2001 12:51p	2,866	gvconfig.h.IN
12/28/2001 12:51p	8,064	INSTALL
12/28/2001 12:51p	5,849	install-sh
12/28/2001 12:51p	124,781	libtool
12/28/2001 12:51p	99,548	ltconfig
12/28/2001 12:51p	114,545	ltmain.sh
12/28/2001 12:51p	280	Makeargs
12/28/2001 12:51p	16,270	Makefile
12/28/2001 12:51p	772	Makefile.am
12/28/2001 12:51p	16,527	Makefile.IN
12/28/2001 12:51p	6,960	MINTERMS.txt
12/28/2001 12:51p	6,473	missing
12/28/2001 12:51p	762	mkinstalldirs
12/28/2001 12:51p	4,074	NEWS

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12/28/2001	12:51p	417 nmakefile
12/28/2001	12:51p	141 README
12/28/2001	12:51p	11 stamp-h
12/28/2001	12:51p	11 stamp-h.in
	36 File(s)	762,515 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\agraph

12/28/2001	12:51p	1,280 agerror.c
12/28/2001	12:51p	5,114 aghdr.h
12/28/2001	12:51p	18,912 agraph.3
12/28/2001	12:51p	14,773 agraph.h
12/28/2001	12:51p	2,292 apply.c
12/28/2001	12:51p	10,278 attr.c
12/28/2001	12:51p	9,616 cmpnd.c
12/28/2001	12:51p	1,260 dotdge.c
12/28/2001	12:51p	9,639 edge.c
12/28/2001	12:51p	227 fixheader
12/28/2001	12:51p	1,221 flatten.c
12/28/2001	12:51p	39,722 grammar.c
12/28/2001	12:51p	8,064 grammar.grammar
12/28/2001	12:51p	324 grammar.h
12/28/2001	12:51p	11,069 grammar.y
12/28/2001	12:51p	5,019 graph.c
12/28/2001	12:51p	3,192 id.c
12/28/2001	12:51p	4,587 imap.c
12/28/2001	12:51p	929 io.c
12/28/2001	12:51p	1,963 main.c
12/28/2001	12:51p	13,107 Makefile
12/28/2001	12:51p	685 Makefile.am

12/28/2001 12:51p	13,656	Makefile.IN
12/28/2001 12:51p	69	malloc.h
12/28/2001 12:51p	2,882	mem.c
12/28/2001 12:51p	842	nmakefile
12/28/2001 12:51p	5,824	node.c
12/28/2001 12:51p	5,650	obj.c
12/28/2001 12:51p	5,418	pend.c
12/28/2001 12:51p	44	README
12/28/2001 12:51p	5,938	rec.c
12/28/2001 12:51p	2,808	refstr.c
12/28/2001 12:51p	44,702	scan.c
12/28/2001 12:51p	3,250	scan.l
12/28/2001 12:51p	2,274	subg.c
12/28/2001 12:51p	1,260	tester.c
12/28/2001 12:51p	2,021	utils.c
12/28/2001 12:51p	881	vmstub.h
12/28/2001 12:51p	10,616	write.c
39 File(s)	271,408 bytes	

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\agutil

12/28/2001 12:51p	455	agutil.h
12/28/2001 12:51p	740	dynattr.c
12/28/2001 12:51p	10,707	Makefile
12/28/2001 12:51p	276	Makefile.am
12/28/2001 12:51p	11,241	Makefile.in
12/28/2001 12:51p	713	nodeq.c
6 File(s)	24,132 bytes	

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\cdt

12/28/2001 12:51p	3,394	ast_common.h
12/28/2001 12:51p	19,591	cdt.3
12/28/2001 12:51p	8,301	cdt.h
12/28/2001 12:51p	1,293	dtclose.c
12/28/2001 12:51p	2,886	dtdisc.c
12/28/2001 12:51p	1,250	dtextract.c
12/28/2001 12:51p	1,698	dtflatten.c
12/28/2001 12:51p	7,251	dthash.c
12/28/2001 12:51p	2,569	dthdr.h
12/28/2001 12:51p	4,361	dtlist.c
12/28/2001 12:51p	2,548	dtmethod.c
12/28/2001 12:51p	2,289	dtopen.c
12/28/2001 12:51p	1,841	dtrenew.c
12/28/2001 12:51p	2,076	dtrestore.c
12/28/2001 12:51p	1,310	dtsize.c
12/28/2001 12:51p	2,725	dtstat.c
12/28/2001 12:51p	1,028	dtstrhash.c
12/28/2001 12:51p	7,187	dttree.c
12/28/2001 12:51p	3,279	dtview.c
12/28/2001 12:51p	1,130	dtwalk.c
12/28/2001 12:51p	609	libcdt.la
12/28/2001 12:51p	12,646	Makefile
12/28/2001 12:51p	678	Makefile.am
12/28/2001 12:51p	13,183	Makefile.IN
12/28/2001 12:51p	509	nmakefile
12/28/2001 12:51p	939	README

26 File(s)   106,571 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\cdt\features

12/28/2001 12:51p   8,960 common
          1 File(s)   8,960 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\contrib

12/28/2001 12:51p   2,148 gprof2dot.awk
12/28/2001 12:51p   127 INDEX
12/28/2001 12:51p   7,632 Makefile
12/28/2001 12:51p   259 Makefile.am
12/28/2001 12:51p   8,110 Makefile.in
          5 File(s)   18,276 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\contrib\CVS

12/28/2001 12:51p   154 Entries
12/28/2001 12:51p   18 Repository
12/28/2001 12:51p   40 Root
          3 File(s)   212 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\contrib\lefty-grace

12/28/2001 12:51p   23,701 dotty.lefty
12/28/2001 12:51p   30,116 dotty_draw.lefty
12/28/2001 12:51p   21,460 dotty_edit.lefty
12/28/2001 12:51p   19,317 dotty_ui.lefty
12/28/2001 12:51p   2,018 README
          5 File(s)   96,612 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\contrib\lefty-grace\CVS

12/28/2001	12:51p	256 Entries
12/28/2001	12:51p	30 Repository
12/28/2001	12:51p	40 Root
	3 File(s)	326 bytes

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Directory of F:\Send\ExtLibraries\graphviz-1.7.7\contrib\lefty-grace\lefty-grace

10

12/28/2001	12:51p	23,701 dotty.lefty
12/28/2001	12:51p	30,116 dotty_draw.lefty
12/28/2001	12:51p	21,460 dotty_edit.lefty
12/28/2001	12:51p	19,317 dotty_ui.lefty
12/28/2001	12:51p	2,018 README
	5 File(s)	96,612 bytes

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Directory of F:\Send\ExtLibraries\graphviz-1.7.7\contrib\lefty-grace\lefty-grace\CVS

12/28/2001	12:51p	256 Entries
12/28/2001	12:51p	30 Repository
12/28/2001	12:51p	40 Root
	3 File(s)	326 bytes

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Directory of F:\Send\ExtLibraries\graphviz-1.7.7\dag

25

12/28/2001	12:51p	6,931 base.c
12/28/2001	12:51p	5,400 check.c
12/28/2001	12:51p	6,444 config.c
12/28/2001	12:51p	2,385 dag.c
12/28/2001	12:51p	10,029 dag.h

30

12/28/2001	12:51p	16,358 ddspline.c
12/28/2001	12:51p	4,020 geom.c
12/28/2001	12:51p	10,962 Makefile
12/28/2001	12:51p	472 Makefile.am
12/28/2001	12:51p	11,496 Makefile.in
12/28/2001	12:51p	2,606 medians.c
12/28/2001	12:51p	4,137 opt.c
12/28/2001	12:51p	13,880 order.c
12/28/2001	12:51p	11,400 rank.c
12/28/2001	12:51p	1,443 uvcross.c
12/28/2001	12:51p	5,440 work.c
12/28/2001	12:51p	5,834 xcoord.c
12/28/2001	12:51p	3,181 ycoord.c
	18 File(s)	122,418 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\doc

12/28/2001	12:51p	8,327 build.html
12/28/2001	12:51p	5,366 Dot.ref
12/28/2001	12:51p	9,584 FAQ.html
12/28/2001	12:51p	137,760 gd.html
12/28/2001	12:51p	7,600 Makefile
12/28/2001	12:51p	262 Makefile.am
12/28/2001	12:51p	8,078 Makefile.in
12/28/2001	12:51p	6,754 tcldot.html
	8 File(s)	183,731 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\dotneato

12/28/2001	12:51p	11,833 dot.1

12/28/2001 12:51p	1,258	dot.c
12/28/2001 12:51p	2,118	dotmemtest.c
12/28/2001 12:51p	18,960	Makefile
12/28/2001 12:51p	1,590	Makefile.am
12/28/2001 12:51p	19,506	Makefile.IN
12/28/2001 12:51p	3,577	neato.1
12/28/2001 12:51p	1,264	neato.c
12/28/2001 12:51p	2,028	neatomemtest.c
12/28/2001 12:51p	33	nmakefile
12/28/2001 12:51p	17,843	XFIG_FORMAT3.2.txt

           11 File(s)   80,010 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\dotneato\awk

12/28/2001 12:51p	1,010	colortbl.awk
12/28/2001 12:51p	395	stringize.awk
12/28/2001 12:51p	1,310	typegraph.awk

           3 File(s)   2,715 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\dotneato\common

12/28/2001 12:51p	16,478	colortbl.h
12/28/2001 12:51p	13,886	color_lib
12/28/2001 12:51p	13,886	color_names
12/28/2001 12:51p	3,267	colxlate.c
12/28/2001 12:51p	5,262	const.h
12/28/2001 12:51p	20,822	emit.c
12/28/2001 12:51p	13,200	figgen.c
12/28/2001 12:51p	20,819	gdgen.c
12/28/2001 12:51p	589	globals.c

	12/28/2001	12:51p	3,154 globals.h
	12/28/2001	12:51p	21,616 hpglgen.c
	12/28/2001	12:51p	12,961 imapgen.c
	12/28/2001	12:51p	9,182 input.c
5	12/28/2001	12:51p	9,951 ismapgen.c
	12/28/2001	12:51p	624 libdotneato.la
	12/28/2001	12:51p	2,021 macros.h
	12/28/2001	12:51p	11,877 Makefile
	12/28/2001	12:51p	1,141 Makefile.am
10	12/28/2001	12:51p	12,408 Makefile.IN
	12/28/2001	12:51p	17,333 mifgen.c
	12/28/2001	12:51p	7,661 mpgen.c
	12/28/2001	12:51p	1,392 nmakefile
	12/28/2001	12:51p	7,363 output.c
15	12/28/2001	12:51p	18,928 picgen.c
	12/28/2001	12:51p	7,091 postproc.c
	12/28/2001	12:51p	3,557 ps.h
	12/28/2001	12:51p	3,090 ps.txt
	12/28/2001	12:51p	12,760 psgen.c
20	12/28/2001	12:51p	1,970 README.imap
	12/28/2001	12:51p	1,078 render.h
	12/28/2001	12:51p	5,732 renderprocs.h
	12/28/2001	12:51p	37,647 shapes.c
	12/28/2001	12:51p	372 strcasecmp.c
25	12/28/2001	12:51p	469 strncasecmp.c
	12/28/2001	12:51p	17,791 svggen.c
	12/28/2001	12:51p	9,667 types.h
	12/28/2001	12:51p	11,891 utils.c
	12/28/2001	12:51p	531 utils.h
30	12/28/2001	12:51p	18,531 vrmlgen.c

12/28/2001 12:51p   14,808 vtxgen.c

  40 File(s) 392,806 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\dotneato\dotgen

12/28/2001 12:51p   1,388 acyclic.c

12/28/2001 12:51p   2,716 class1.c

12/28/2001 12:51p   6,729 class2.c

12/28/2001 12:51p   9,473 cluster.c

12/28/2001 12:51p   13,932 compound.c

12/28/2001 12:51p   5,795 conc.c

12/28/2001 12:51p   2,316 decomp.c

12/28/2001 12:51p   631 dot.h

12/28/2001 12:51p   9,914 dotprocs.h

12/28/2001 12:51p   7,323 fastgr.c

12/28/2001 12:51p   5,243 flat.c

12/28/2001 12:51p   6,399 init.c

12/28/2001 12:51p   609 libdot.la

12/28/2001 12:51p   11,127 Makefile

12/28/2001 12:51p   545 Makefile.am

12/28/2001 12:51p   11,658 Makefile.IN

12/28/2001 12:51p   32,107 mincross.c

12/28/2001 12:51p   225 nmakefile

12/28/2001 12:51p   16,647 ns.c

12/28/2001 12:51p   20,272 position.c

12/28/2001 12:51p   10,930 rank.c

12/28/2001 12:51p   18,537 routespl.c

12/28/2001 12:51p   7,002 sameport.c

12/28/2001 12:51p   60,818 splines.c

12/28/2001 12:51p   1,189 timing.c

25 File(s)   263,525 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\dotneato\neatogen

5   12/28/2001 12:51p   13,284 adjust.c

       12/28/2001 12:51p   592 adjust.h

       12/28/2001 12:51p   4,677 edges.c

       12/28/2001 12:51p   1,067 edges.h

       12/28/2001 12:51p   3,282 find_ints.c

10   12/28/2001 12:51p   2,573 geometry.c

       12/28/2001 12:51p   1,245 geometry.h

       12/28/2001 12:51p   3,050 heap.c

       12/28/2001 12:51p   766 heap.h

       12/28/2001 12:51p   6,609 hedges.c

15   12/28/2001 12:51p   1,347 hedges.h

       12/28/2001 12:51p   6,913 info.c

       12/28/2001 12:51p   1,394 info.h

       12/28/2001 12:51p   4,941 init.c

       12/28/2001 12:51p   3,999 intersect.c

20   12/28/2001 12:51p   2,931 legal.c

       12/28/2001 12:51p   615 libneato.la

       12/28/2001 12:51p   11,372 Makefile

       12/28/2001 12:51p   771 Makefile.am

       12/28/2001 12:51p   11,903 Makefile.IN

25   12/28/2001 12:51p   1,646 mem.h

       12/28/2001 12:51p   2,746 memory.c

       12/28/2001 12:51p   752 neato.h

       12/28/2001 12:51p   2,713 neatoprocs.h

       12/28/2001 12:51p   244 nmakefile

30   12/28/2001 12:51p   9,622 poly.c

12/28/2001 12:51p	890 poly.h
12/28/2001 12:51p	1,158 printvis.c
12/28/2001 12:51p	1,442 simple.h
12/28/2001 12:51p	1,451 site.c
12/28/2001 12:51p	1,130 site.h
12/28/2001 12:51p	2,392 solve.c
12/28/2001 12:51p	20,643 splines.c
12/28/2001 12:51p	13,655 stuff.c
12/28/2001 12:51p	3,719 voronoi.c
12/28/2001 12:51p	619 voronoi.h
36 File(s)	148,153 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\dotty

12/28/2001 12:51p	1,052 dotty.1
12/28/2001 12:51p	2,150 dotty.bsh
12/28/2001 12:51p	2,408 dotty.ksh
12/28/2001 12:51p	24,415 dotty.lefty
12/28/2001 12:51p	2,155 dotty.sh
12/28/2001 12:51p	29,613 dotty_draw.lefty
12/28/2001 12:51p	18,436 dotty_edit.lefty
12/28/2001 12:51p	8,345 dotty_layout.lefty
12/28/2001 12:51p	13,553 dotty_ui.lefty
12/28/2001 12:51p	11,129 Makefile
12/28/2001 12:51p	478 Makefile.am
12/28/2001 12:51p	11,608 Makefile.IN
12/28/2001 12:51p	296 nmakefile
12/28/2001 12:51p	46 notes
14 File(s)	125,684 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\dotty\mswin32

12/28/2001 12:51p	178 doinst
12/28/2001 12:51p	2,403 dotty.c
12/28/2001 12:51p	6,425 dotty.mak
3 File(s)	9,006 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\dotty\mswin32\CVS

12/28/2001 12:51p	139 Entries
12/28/2001 12:51p	24 Repository
12/28/2001 12:51p	40 Root
3 File(s)	203 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\fdp

12/28/2001 12:51p	5,603 adjust.c
12/28/2001 12:51p	112 adjust.h
12/28/2001 12:51p	824 component.c
12/28/2001 12:51p	170 component.h
12/28/2001 12:51p	1,860 exprval.c
12/28/2001 12:51p	568 exprval.h
12/28/2001 12:51p	3,748 grid.c
12/28/2001 12:51p	625 grid.h
12/28/2001 12:51p	12,445 il.c
12/28/2001 12:51p	692 macros.h
12/28/2001 12:51p	10,927 Makefile
12/28/2001 12:51p	520 Makefile.am
12/28/2001 12:51p	11,461 Makefile.in
12/28/2001 12:51p	3,894 options.c

12/28/2001 12:51p	381	options.h
12/28/2001 12:51p	1,229	structs.h
16 File(s)	55,059 bytes	

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\gd

12/28/2001 12:51p	4,211	bdftogd
12/28/2001 12:51p	39,981	gd.c
12/28/2001 12:51p	10,683	gd.h
12/28/2001 12:51p	1,360	gd2copypal.c
12/28/2001 12:51p	1,298	gd2time.c
12/28/2001 12:51p	910	gd2topng.c
12/28/2001 12:51p	5,116	gdcache.c
12/28/2001 12:51p	2,756	gdcache.h
12/28/2001 12:51p	3,051	gddemo.c
12/28/2001 12:51p	81,853	gdfontg.c
12/28/2001 12:51p	519	gdfontg.h
12/28/2001 12:51p	78,780	gdfontl.c
12/28/2001 12:51p	518	gdfontl.h
12/28/2001 12:51p	58,280	gdfontmb.c
12/28/2001 12:51p	479	gdfontmb.h
12/28/2001 12:51p	51,606	gdfonts.c
12/28/2001 12:51p	480	gdfonts.h
12/28/2001 12:51p	29,618	gdfontt.c
12/28/2001 12:51p	513	gdfontt.h
12/28/2001 12:51p	21,671	gdft.c
12/28/2001 12:51p	1,470	gdhelpers.c
12/28/2001 12:51p	519	gdhelpers.h
12/28/2001 12:51p	12,399	gdkanji.c
12/28/2001 12:51p	1,170	gdparttopng.c

12/28/2001 12:51p	6,214	gdtables.c
12/28/2001 12:51p	9,578	gdtest.c
12/28/2001 12:51p	2,732	gdtestttf.c
12/28/2001 12:51p	907	gdtopng.c
12/28/2001 12:51p	26,750	gdttf.c
12/28/2001 12:51p	3,544	gdxpm.c
12/28/2001 12:51p	4,112	gd_gd.c
12/28/2001 12:51p	21,085	gd_gd2.c
12/28/2001 12:51p	36,160	gd_gif.c
12/28/2001 12:51p	3,093	gd_io.c
12/28/2001 12:51p	956	gd_io.h
12/28/2001 12:51p	7,702	gd_io_dp.c
12/28/2001 12:51p	2,557	gd_io_file.c
12/28/2001 12:51p	2,898	gd_io_ss.c
12/28/2001 12:51p	24,192	gd_jpeg.c
12/28/2001 12:51p	22,928	gd_png.c
12/28/2001 12:51p	897	gd_ss.c
12/28/2001 12:51p	5,370	gd_wbmp.c
12/28/2001 12:51p	893	giftogd.c
12/28/2001 12:51p	137,760	index.html
12/28/2001 12:51p	38	install-item
12/28/2001 12:51p	72,555	jisx0208.h
12/28/2001 12:51p	606	libgd.la
12/28/2001 12:51p	11,867	Makefile
12/28/2001 12:51p	1,261	Makefile.am
12/28/2001 12:51p	12,417	Makefile.IN
12/28/2001 12:51p	3,686	Makefile.nt
12/28/2001 12:51p	5,850	Makefile.orig
12/28/2001 12:51p	926	mathmake.c
12/28/2001 12:51p	754	nmakefile

12/28/2001 12:51p	907	pngtogd.c
12/28/2001 12:51p	1,149	pngtogd2.c
12/28/2001 12:51p	132,756	readme.txt
12/28/2001 12:51p	6,928	wbmp.c
12/28/2001 12:51p	1,271	wbmp.h
12/28/2001 12:51p	5,149	webpng.c
60 File(s)	987,689 bytes	

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\gd\test

12/28/2001 12:51p	28,877	gdtest.gd2
1 File(s)	28,877 bytes	

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\gdtclft

12/28/2001 12:51p	40,491	gdtclft.c
12/28/2001 12:51p	12,039	gdtclft.n
12/28/2001 12:51p	16,611	Makefile
12/28/2001 12:51p	848	Makefile.am
12/28/2001 12:51p	17,188	Makefile.IN
12/28/2001 12:51p	127	nmakefile
6 File(s)	87,304 bytes	

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\gdtclft\demo

12/28/2001 12:51p	1,684	entities
12/28/2001 12:51p	44,391	entities.html
12/28/2001 12:51p	291	entities.README
12/28/2001 12:51p	9,291	Makefile
12/28/2001 12:51p	234	Makefile.am

12/28/2001 12:51p   9,767 Makefile.in

      6 File(s)   65,658 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\geo

12/28/2001 12:51p   3,680 geo.c

12/28/2001 12:51p   10,618 Makefile

12/28/2001 12:51p   307 Makefile.am

12/28/2001 12:51p   11,152 Makefile.in

      4 File(s)   25,757 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\graph

12/28/2001 12:51p   6,770 attribs.c

12/28/2001 12:51p   6,214 edge.c

12/28/2001 12:51p   10,088 graph.3

12/28/2001 12:51p   8,842 graph.c

12/28/2001 12:51p   4,769 graph.h

12/28/2001 12:51p   10,389 graphio.c

12/28/2001 12:51p   6,382 lexer.c

12/28/2001 12:51p   4,080 libgraph.h

12/28/2001 12:51p   615 libgraph.la

12/28/2001 12:51p   12,989 Makefile

12/28/2001 12:51p   799 Makefile.am

12/28/2001 12:51p   13,523 Makefile.IN

12/28/2001 12:51p   303 nmakefile

12/28/2001 12:51p   2,984 node.c

12/28/2001 12:51p   38,655 parser.c

12/28/2001 12:51p   11,243 parser.grammar

12/28/2001 12:51p   315 parser.h

12/28/2001 12:51p	8,877 parser.y
12/28/2001 12:51p	1,915 refstr.c
12/28/2001 12:51p	2,570 trie.c
12/28/2001 12:51p	2,836 triefa.cP
12/28/2001 12:51p	1,210 triefa.h
22 File(s)	156,368 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\graphs

12/28/2001 12:51p	11,517 Makefile
12/28/2001 12:51p	118 Makefile.am
12/28/2001 12:51p	12,005 Makefile.in
3 File(s)	23,640 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\graphs\directed

12/28/2001 12:51p	851 abstract.dot
12/28/2001 12:51p	990 alf.dot
12/28/2001 12:51p	7,493 awilliams.dot
12/28/2001 12:51p	278 clust.dot
12/28/2001 12:51p	154 clust1.dot
12/28/2001 12:51p	154 clust2.dot
12/28/2001 12:51p	154 clust3.dot
12/28/2001 12:51p	428 clust4.dot
12/28/2001 12:51p	263 clust5.dot
12/28/2001 12:51p	5,676 crazy.dot
12/28/2001 12:51p	444 ctext.dot
12/28/2001 12:51p	993 dfa.dot
12/28/2001 12:51p	909 fig6.dot
12/28/2001 12:51p	625 fsm.dot

12/28/2001 12:51p	1,373 grammar.dot
12/28/2001 12:51p	652 hashtable.dot
12/28/2001 12:51p	822 jcctree.dot
12/28/2001 12:51p	6,339 jsort.dot
12/28/2001 12:51p	436 KW91.dot
12/28/2001 12:51p	5,571 ldbxtried.dot
12/28/2001 12:51p	9,162 Makefile
12/28/2001 12:51p	926 Makefile.am
12/28/2001 12:51p	9,638 Makefile.in
12/28/2001 12:51p	423 mike.dot
12/28/2001 12:51p	2,798 NaN.dot
12/28/2001 12:51p	392 newarrows.dot
12/28/2001 12:51p	352 nhg.dot
12/28/2001 12:51p	2,705 pgram.dot
12/28/2001 12:51p	2,146 pm2way.dot
12/28/2001 12:51p	3,718 pmpipe.dot
12/28/2001 12:51p	5,317 polypoly.dot
12/28/2001 12:51p	6,564 proc3d.dot
12/28/2001 12:51p	432 records.dot
12/28/2001 12:51p	837 rowe.dot
12/28/2001 12:51p	1,157 shells.dot
12/28/2001 12:51p	514 states.dot
12/28/2001 12:51p	315 structs.dot
12/28/2001 12:51p	807 train11.dot
12/28/2001 12:51p	1,563 trapeziumlr.dot
12/28/2001 12:51p	608 tree.dot
12/28/2001 12:51p	1,724 triedds.dot
12/28/2001 12:51p	178 try.dot
12/28/2001 12:51p	1,486 unix.dot
12/28/2001 12:51p	1,782 unix2.dot

12/28/2001 12:51p   1,831 viewfile.dot

12/28/2001 12:51p   1,047 world.dot

     46 File(s)   93,027 bytes

5   Directory of F:\Send\ExtLibraries\graphviz-1.7.7\graphs\undirected

12/28/2001 12:51p   672 ER.dot

12/28/2001 12:51p   8,766 Makefile

12/28/2001 12:51p   476 Makefile.am

10   12/28/2001 12:51p   9,242 Makefile.in

12/28/2001 12:51p   1,857 ngk10_4.dot

12/28/2001 12:51p   249 process.dot

     6 File(s)   21,262 bytes

15   Directory of F:\Send\ExtLibraries\graphviz-1.7.7\grid

12/28/2001 12:51p   4,331 cutbox.c

12/28/2001 12:51p   10,569 erbase.c

12/28/2001 12:51p   7,891 grid.c

20   12/28/2001 12:51p   5,310 grid.h

12/28/2001 12:51p   10,767 Makefile

12/28/2001 12:51p   342 Makefile.am

12/28/2001 12:51p   11,301 Makefile.in

12/28/2001 12:51p   1,103 print.c

25   12/28/2001 12:51p   12,368 route.c

     9 File(s)   63,982 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\incr

30   12/28/2001 12:51p   1,360 basic.c

12/28/2001	12:51p	4,627 batch.c
12/28/2001	12:51p	2,735 callback.c
12/28/2001	12:51p	458 dispatch.c
12/28/2001	12:51p	5,060 edgeclip.c
12/28/2001	12:51p	2,258 engine.c
12/28/2001	12:51p	3,706 engine.h
12/28/2001	12:51p	7,034 incr.h
12/28/2001	12:51p	10,867 Makefile
12/28/2001	12:51p	403 Makefile.am
12/28/2001	12:51p	11,401 Makefile.in
12/28/2001	12:51p	6,135 model.c
12/28/2001	12:51p	4,749 routem.c
13 File(s)		60,793 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\lefty

12/28/2001	12:51p	2,459 code.c
12/28/2001	12:51p	1,833 code.h
12/28/2001	12:51p	17,155 colors.txt
12/28/2001	12:51p	11,857 common.c
12/28/2001	12:51p	1,943 common.h
12/28/2001	12:51p	4,605 display.c
12/28/2001	12:51p	689 display.h
12/28/2001	12:51p	28,973 exec.c
12/28/2001	12:51p	872 exec.h
12/28/2001	12:51p	25,207 g.c
12/28/2001	12:51p	11,686 g.h
12/28/2001	12:51p	50,387 gfxview.c
12/28/2001	12:51p	1,738 gfxview.h
12/28/2001	12:51p	21,692 internal.c

12/28/2001 12:51p	848	internal.h
12/28/2001 12:51p	1,724	io.h
12/28/2001 12:51p	3,496	lefty.1
12/28/2001 12:51p	11,418	lefty.c
12/28/2001 12:51p	2,441	lefty.psp
12/28/2001 12:51p	7,137	lex.c
12/28/2001 12:51p	1,250	lex.h
12/28/2001 12:51p	17,819	Makefile
12/28/2001 12:51p	1,155	Makefile.am
12/28/2001 12:51p	18,461	Makefile.IN
12/28/2001 12:51p	10,962	mem.c
12/28/2001 12:51p	1,660	mem.h
12/28/2001 12:51p	1,096	nmakefile
12/28/2001 12:51p	15,170	parse.c
12/28/2001 12:51p	850	parse.h
12/28/2001 12:51p	13,267	str.c
12/28/2001 12:51p	822	str.h
12/28/2001 12:51p	18,654	tbl.c
12/28/2001 12:51p	3,774	tbl.h
12/28/2001 12:51p	19,834	txtview.c
12/28/2001 12:51p	834	txtview.h
35 File(s)	333,768 bytes	

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\lefty\aix_mods

12/28/2001 12:51p	1,414	common.h
12/28/2001 12:51p	28,496	exec.c
12/28/2001 12:51p	18,172	tbl.c
3 File(s)	48,082 bytes	

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\lefty\aix_mods\CVS

12/28/2001 12:51p	136 Entries
12/28/2001 12:51p	25 Repository
12/28/2001 12:51p	40 Root
3 File(s)	201 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\lefty\cs2l

12/28/2001 12:51p	1,113 cs2l.c
12/28/2001 12:51p	124 cs2l.h
12/28/2001 12:51p	8,543 Makefile
12/28/2001 12:51p	246 Makefile.am
12/28/2001 12:51p	9,018 Makefile.in
5 File(s)	19,044 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\lefty\dot2l

12/28/2001 12:51p	23,362 dot2l.c
12/28/2001 12:51p	1,100 dot2l.h
12/28/2001 12:51p	6,891 dotlex.c
12/28/2001 12:51p	33,001 dotparse.c
12/28/2001 12:51p	268 dotparse.h
12/28/2001 12:51p	3,505 dotparse.y
12/28/2001 12:51p	2,429 dottrie.c
12/28/2001 12:51p	11,337 Makefile
12/28/2001 12:51p	533 Makefile.am
12/28/2001 12:51p	11,868 Makefile.in
12/28/2001 12:51p	2,243 triefa.cP
12/28/2001 12:51p	798 triefa.h

12 File(s)   97,335 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\lefty\examples

5

12/28/2001 12:51p   3,770 box.lefty

12/28/2001 12:51p   474 def.lefty

12/28/2001 12:51p   2,833 fractal.lefty

12/28/2001 12:51p   5,985 fractal2.lefty

12/28/2001 12:51p   8,616 Makefile

10

12/28/2001 12:51p   286 Makefile.am

12/28/2001 12:51p   9,092 Makefile.in

12/28/2001 12:51p   3,307 slides.lefty

12/28/2001 12:51p   5,079 tree.lefty

        9 File(s)   39,442 bytes

15

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\lefty\os

12/28/2001 12:51p   11,489 Makefile

12/28/2001 12:51p   77 Makefile.am

20

12/28/2001 12:51p   11,974 Makefile.in

        3 File(s)   23,540 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\lefty\os\unix

25

12/28/2001 12:51p   10,245 io.c

12/28/2001 12:51p   10,547 Makefile

12/28/2001 12:51p   176 Makefile.am

12/28/2001 12:51p   11,075 Makefile.in

        4 File(s)   32,043 bytes

30

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\lefty\ws

12/28/2001	12:51p	11,552 Makefile
12/28/2001	12:51p	102 Makefile.am
12/28/2001	12:51p	12,037 Makefile.in
	3 File(s)	23,691 bytes

5

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\lefty\ws\mswin32

10

12/28/2001	12:51p	9,586 garray.c
12/28/2001	12:51p	4,306 gbutton.c
12/28/2001	12:51p	43,610 gcanvas.c
12/28/2001	12:51p	22,815 gcommon.c
12/28/2001	12:51p	5,719 gcommon.h
12/28/2001	12:51p	4,526 glabel.c
12/28/2001	12:51p	2,535 gmenu.c
12/28/2001	12:51p	38,128 gpcanvas.c
12/28/2001	12:51p	6,684 gquery.c
12/28/2001	12:51p	6,186 gscroll.c
12/28/2001	12:51p	6,537 gtext.c
12/28/2001	12:51p	4,777 gview.c
12/28/2001	12:51p	2,424 lefty.rc
12/28/2001	12:51p	636 resource.h
	14 File(s)	158,469 bytes

25

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\lefty\ws\mswin32\CVS

12/28/2001	12:51p	653 Entries
12/28/2001	12:51p	27 Repository
12/28/2001	12:51p	40 Root

15

20

30

3 File(s)   720 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\lefty\ws\x11

5   12/28/2001 12:51p   16,447 garray.c

          12/28/2001 12:51p   5,480 gbutton.c

          12/28/2001 12:51p   52,762 gcanvas.c

          12/28/2001 12:51p   5,981 gcommon.c

          12/28/2001 12:51p   6,780 gcommon.h

10   12/28/2001 12:51p   6,112 glabel.c

          12/28/2001 12:51p   3,408 gmenu.c

          12/28/2001 12:51p   23,301 gpcanvas.c

          12/28/2001 12:51p   9,563 gquery.c

          12/28/2001 12:51p   7,609 gscroll.c

15   12/28/2001 12:51p   8,516 gtext.c

          12/28/2001 12:51p   6,292 gview.c

          12/28/2001 12:51p   14,024 Makefile

          12/28/2001 12:51p   365 Makefile.am

          12/28/2001 12:51p   14,586 Makefile.in

20   15 File(s)   181,226 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\lefty\ws\x11\libfilereq

          12/28/2001 12:51p   4,440 Dir.c

25   12/28/2001 12:51p   17,904 Draw.c

          12/28/2001 12:51p   10,824 Makefile

          12/28/2001 12:51p   306 Makefile.am

          12/28/2001 12:51p   11,359 Makefile.in

          12/28/2001 12:51p   17,999 Path.c

30   12/28/2001 12:51p   2,829 README.selfile

12/28/2001 12:51p   22,428 SelFile.c

12/28/2001 12:51p   3,650 SFinternal.h

12/28/2001 12:51p   529 xstat.h

               10 File(s)   92,268 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\lneato

12/28/2001 12:51p   1,573 lneato.bsh

12/28/2001 12:51p   1,644 lneato.ksh

12/28/2001 12:51p   1,575 lneato.sh

12/28/2001 12:51p   7,759 Makefile

12/28/2001 12:51p   330 Makefile.am

12/28/2001 12:51p   8,237 Makefile.IN

12/28/2001 12:51p   67 nmakefile

                7 File(s)   21,185 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\lneato\mswin32

12/28/2001 12:51p   152 doinst

12/28/2001 12:51p   2,431 lneato.c

12/28/2001 12:51p   6,462 lneato.mak

                3 File(s)   9,045 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\lneato\mswin32\CVS

12/28/2001 12:51p   141 Entries

12/28/2001 12:51p   25 Repository

12/28/2001 12:51p   40 Root

                3 File(s)   206 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\makearch

12/28/2001	12:51p	462 aix41
12/28/2001	12:51p	644 hp.pa
12/28/2001	12:51p	444 linux.i386
12/28/2001	12:51p	394 netbsd.i386
12/28/2001	12:51p	391 osf.alpha
12/28/2001	12:51p	411 sgi.mips2
12/28/2001	12:51p	442 sgi.mips3
12/28/2001	12:51p	573 sol.i386
12/28/2001	12:51p	558 sol.sun4
12/28/2001	12:51p	560 sol6.sun4
12/28/2001	12:51p	353 sun4
11 File(s)		5,232 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\makearch\CVS

12/28/2001	12:51p	464 Entries
12/28/2001	12:51p	19 Repository
12/28/2001	12:51p	40 Root
3 File(s)		523 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\ns

12/28/2001	12:51p	10,644 Makefile
12/28/2001	12:51p	282 Makefile.am
12/28/2001	12:51p	11,178 Makefile.in
12/28/2001	12:51p	20,299 ns.c
12/28/2001	12:51p	399 ns.h
12/28/2001	12:51p	604 nspvt.h

6 File(s)   43,406 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\pathplan

12/28/2001 12:51p   7,178 cvt.c

12/28/2001 12:51p   2,472 inpoly.c

12/28/2001 12:51p   624 libpathplan.la

12/28/2001 12:51p   12,411 Makefile

12/28/2001 12:51p   488 Makefile.am

12/28/2001 12:51p   12,945 Makefile.IN

12/28/2001 12:51p   405 nmakefile

12/28/2001 12:51p   6,798 path.lefty

12/28/2001 12:51p   949 pathgeom.h

12/28/2001 12:51p   2,845 pathplan.3

12/28/2001 12:51p   1,253 pathplan.h

12/28/2001 12:51p   970 pathutil.h

12/28/2001 12:51p   1,237 README

12/28/2001 12:51p   18,574 route.c

12/28/2001 12:51p   17,447 shortest.c

12/28/2001 12:51p   3,120 shortestpth.c

12/28/2001 12:51p   2,782 solvers.c

12/28/2001 12:51p   693 solvers.h

12/28/2001 12:51p   598 tri.h

12/28/2001 12:51p   4,837 triang.c

12/28/2001 12:51p   1,375 util.c

12/28/2001 12:51p   1,414 vis.h

12/28/2001 12:51p   11,846 visibility.c

12/28/2001 12:51p   1,329 vispath.h

24 File(s)   114,590 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\shape

12/28/2001	12:51p	3,558 inpoly.c
12/28/2001	12:51p	10,702 Makefile
12/28/2001	12:51p	288 Makefile.am
12/28/2001	12:51p	11,236 Makefile.in
12/28/2001	12:51p	2,158 shape.c
12/28/2001	12:51p	1,448 shape.h
	6 File(s)	29,390 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tcldgl

12/28/2001	12:51p	5,958 dgl.c
12/28/2001	12:51p	3,531 dgl.h
12/28/2001	12:51p	11,692 dglayout.c
12/28/2001	12:51p	16,976 dglshape.c
12/28/2001	12:51p	10,908 dglutil.c
12/28/2001	12:51p	17,134 Makefile
12/28/2001	12:51p	1,141 Makefile.am
12/28/2001	12:51p	17,709 Makefile.in
12/28/2001	12:51p	13,501 tcldgl.n
	9 File(s)	98,550 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tcldgl\demo

12/28/2001	12:51p	24,728 dge
12/28/2001	12:51p	1,486 dge.example1.dot
12/28/2001	12:51p	6,682 dge.example2.dot
12/28/2001	12:51p	489 dge.README
12/28/2001	12:51p	9,300 Makefile

12/28/2001 12:51p	245	Makefile.am
12/28/2001 12:51p	9,776	Makefile.in
7 File(s)	52,706 bytes	

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tcldgr

12/28/2001 12:51p	6,059	dgedge.c
12/28/2001 12:51p	11,642	dgnode.c
12/28/2001 12:51p	7,695	dgr.c
12/28/2001 12:51p	2,735	dgr.h
12/28/2001 12:51p	24,450	dgraph.c
12/28/2001 12:51p	18,377	dgrutil.c
12/28/2001 12:51p	16,727	Makefile
12/28/2001 12:51p	876	Makefile.am
12/28/2001 12:51p	17,302	Makefile.in
12/28/2001 12:51p	27,019	tcldgr.n
10 File(s)	132,882 bytes	

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tcldgr\demo

12/28/2001 12:51p	6,465	ihi
12/28/2001 12:51p	991	ihi.README
12/28/2001 12:51p	43	ihi.testdata
12/28/2001 12:51p	9,278	Makefile
12/28/2001 12:51p	225	Makefile.am
12/28/2001 12:51p	9,754	Makefile.in
6 File(s)	26,756 bytes	

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tcldot

12/28/2001	12:51p	17,226 Makefile
12/28/2001	12:51p	1,292 Makefile.am
12/28/2001	12:51p	17,813 Makefile.IN
12/28/2001	12:51p	523 nmakefile
12/28/2001	12:51p	2,295 README
12/28/2001	12:51p	418 README.Tkspline
12/28/2001	12:51p	43,963 tcldot.c
12/28/2001	12:51p	137 tcldot.h
12/28/2001	12:51p	15,368 tcldot.n
12/28/2001	12:51p	13,901 tkgen.c
	10 File(s)	112,936 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tcldot\demo

12/28/2001	12:51p	21,006 doted
12/28/2001	12:51p	394 doted.README
12/28/2001	12:51p	9,269 Makefile
12/28/2001	12:51p	214 Makefile.am
12/28/2001	12:51p	9,745 Makefile.in
	5 File(s)	40,628 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tclhandle

12/28/2001	12:51p	10,721 Makefile
12/28/2001	12:51p	255 Makefile.am
12/28/2001	12:51p	11,255 Makefile.IN
12/28/2001	12:51p	62 nmakefile
12/28/2001	12:51p	13,385 tclhandle.c

12/28/2001 12:51p		3,230 tclhandle.h
	6 File(s)	38,908 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tclpathplan

12/28/2001 12:51p		2,626 find_ints.c
12/28/2001 12:51p		3,470 intersect.c
12/28/2001 12:51p		875 makecw.c
12/28/2001 12:51p		15,263 Makefile
12/28/2001 12:51p		745 Makefile.am
12/28/2001 12:51p		15,838 Makefile.in
12/28/2001 12:51p		1,001 simple.h
12/28/2001 12:51p		24,300 tclpathplan.c
12/28/2001 12:51p		3,531 wrapper.c
	9 File(s)	67,649 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tclpathplan\demo

12/28/2001 12:51p		13,370 Makefile
12/28/2001 12:51p		250 Makefile.am
12/28/2001 12:51p		13,856 Makefile.in
12/28/2001 12:51p		17,625 pathplan
12/28/2001 12:51p		420 pathplan.README
	5 File(s)	45,521 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tclpathplan\demo\pathplan_data

12/28/2001 12:51p		291 boxes.dat
12/28/2001 12:51p		640 dpd.dat
12/28/2001 12:51p		185 funny.dat

12/28/2001	12:51p	8,704 Makefile
12/28/2001	12:51p	345 Makefile.am
12/28/2001	12:51p	9,177 Makefile.in
12/28/2001	12:51p	1,391 maze.dat
12/28/2001	12:51p	238 nested.dat
12/28/2001	12:51p	238 northo.dat
12/28/2001	12:51p	510 obs.dat
12/28/2001	12:51p	36 other.dat
12/28/2001	12:51p	23 paths.dat
12/28/2001	12:51p	696 rotor.dat
12/28/2001	12:51p	640 u.dat
12/28/2001	12:51p	30 unknown.dat

15 File(s) 23,144 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tclstubs

12/28/2001	12:51p	10,777 Makefile
12/28/2001	12:51p	397 Makefile.am
12/28/2001	12:51p	11,349 Makefile.IN
12/28/2001	12:51p	62 nmakefile
12/28/2001	12:51p	296 README
12/28/2001	12:51p	60 tclStubLib.c

6 File(s) 22,941 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tkspline

12/28/2001	12:51p	16,466 Makefile
12/28/2001	12:51p	732 Makefile.am
12/28/2001	12:51p	17,074 Makefile.in
12/28/2001	12:51p	508 README

12/28/2001	12:51p	7,596 tkspline.c
12/28/2001	12:51p	7,369 tkspline.n
	6 File(s)	49,745 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tkspline\demo

12/28/2001	12:51p	9,275 Makefile
12/28/2001	12:51p	216 Makefile.am
12/28/2001	12:51p	9,751 Makefile.in
12/28/2001	12:51p	4,549 spline
12/28/2001	12:51p	267 spline.README
	5 File(s)	24,058 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tkstubs

12/28/2001	12:51p	10,845 Makefile
12/28/2001	12:51p	403 Makefile.am
12/28/2001	12:51p	11,415 Makefile.in
12/28/2001	12:51p	295 README
12/28/2001	12:51p	60 tkStubImg.c
12/28/2001	12:51p	60 tkStubLib.c
	6 File(s)	23,078 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tools

12/28/2001	12:51p	72,985 iffe
12/28/2001	12:51p	11,532 Makefile
12/28/2001	12:51p	135 Makefile.am
12/28/2001	12:51p	12,020 Makefile.IN
	4 File(s)	96,672 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tools\ast

12/28/2001	12:51p	3,033 align.h
12/28/2001	12:51p	1,998 ast.h
12/28/2001	12:51p	1,714 chresc.c
12/28/2001	12:51p	539 chrtoi.c
12/28/2001	12:51p	1,621 error.c
12/28/2001	12:51p	1,037 error.h
12/28/2001	12:51p	432 fmtbuf.c
12/28/2001	12:51p	2,393 fmtesc.c
12/28/2001	12:51p	1,207 hashkey.h
12/28/2001	12:51p	11,418 Makefile
12/28/2001	12:51p	550 Makefile.am
12/28/2001	12:51p	11,949 Makefile.IN
12/28/2001	12:51p	1,265 pathaccess.c
12/28/2001	12:51p	332 pathbin.c
12/28/2001	12:51p	3,780 pathcanon.c
12/28/2001	12:51p	515 pathcat.c
12/28/2001	12:51p	2,278 pathfind.c
12/28/2001	12:51p	1,375 pathgetlink.c
12/28/2001	12:51p	2,078 pathpath.c
12/28/2001	12:51p	1,181 sfstr.h
12/28/2001	12:51p	235 strcopy.c
12/28/2001	12:51p	365 strerror.c
12/28/2001	12:51p	501 stresc.c
12/28/2001	12:51p	17,148 strmatch.c
12/28/2001	12:51p	3,979 strton.c
25 File(s)		72,923 bytes

38

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tools\expr

Date	Time	Size	Name
12/28/2001	12:51p	14,062	excc.c
12/28/2001	12:51p	1,078	excontext.c
12/28/2001	12:51p	1,360	exdata.c
12/28/2001	12:51p	741	exerror.c
12/28/2001	12:51p	32,024	exeval.c
12/28/2001	12:51p	600	exexpr.c
12/28/2001	12:51p	15,749	exgram.h
12/28/2001	12:51p	810	exlexname.c
12/28/2001	12:51p	4,590	exlib.h
12/28/2001	12:51p	1,408	exopen.c
12/28/2001	12:51p	73,496	exparse.c
12/28/2001	12:51p	23,169	exparse.y
12/28/2001	12:51p	1,819	expr.3
12/28/2001	12:51p	8,037	expr.h
12/28/2001	12:51p	856	exrewind.c
12/28/2001	12:51p	13,929	extoken.c
12/28/2001	12:51p	439	extype.c
12/28/2001	12:51p	436	exzero.c
12/28/2001	12:51p	13,685	Makefile
12/28/2001	12:51p	1,426	Makefile.am
12/28/2001	12:51p	14,185	Makefile.IN
12/28/2001	12:51p	1,563	Makefile.nmake
12/28/2001	12:51p	1,548	Makefile.orig
12/28/2001	12:51p	1,630	RELEASE

24 File(s)   228,640 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tools\gpr

12/28/2001 12:51p	1,950	actions.c
12/28/2001 12:51p	169	actions.h
12/28/2001 12:51p	20,098	compile.c
12/28/2001 12:51p	879	compile.h
12/28/2001 12:51p	11,355	gpr.1
12/28/2001 12:51p	8,287	gpr.c
12/28/2001 12:51p	1,651	gprdata
12/28/2001 12:51p	640	gprstate.c
12/28/2001 12:51p	547	gprstate.h
12/28/2001 12:51p	16,761	Makefile
12/28/2001 12:51p	1,003	Makefile.am
12/28/2001 12:51p	17,320	Makefile.IN
12/28/2001 12:51p	4,044	mkdefs.c
12/28/2001 12:51p	9,754	parse.c
12/28/2001 12:51p	679	parse.h
12/28/2001 12:51p	951	queue.c
12/28/2001 12:51p	488	queue.h

      17 File(s)   96,576 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tools\sfio

12/28/2001 12:51p	15,977	Makefile
12/28/2001 12:51p	1,425	Makefile.am
12/28/2001 12:52p	16,522	Makefile.IN
12/28/2001 12:52p	6,219	Makefile.orig
12/28/2001 12:52p	2,567	README
12/28/2001 12:52p	2,939	sfclose.c
12/28/2001 12:52p	834	sfclrlock.c
12/28/2001 12:52p	4,588	sfcvt.c
12/28/2001 12:52p	3,482	sfdisc.c

12/28/2001 12:52p	617	sfdlen.c
12/28/2001 12:52p	2,574	sfexcept.c
12/28/2001 12:52p	2,644	sfexit.c
12/28/2001 12:52p	2,108	sfextern.c
12/28/2001 12:52p	363	sffcvt.c
12/28/2001 12:52p	2,404	sffilbuf.c
12/28/2001 12:52p	2,016	sfflsbuf.c
12/28/2001 12:52p	904	sfgetd.c
12/28/2001 12:52p	884	sfgetl.c
12/28/2001 12:52p	801	sfgetm.c
12/28/2001 12:52p	2,755	sfgetr.c
12/28/2001 12:52p	755	sfgetu.c
12/28/2001 12:52p	29,501	sfhdr.h
12/28/2001 12:52p	16,306	sfio.h
12/28/2001 12:52p	3,694	sfio_t.h
12/28/2001 12:52p	300	sfllen.c
12/28/2001 12:52p	11,827	sfmode.c
12/28/2001 12:52p	6,095	sfmove.c
12/28/2001 12:52p	838	sfmutex.c
12/28/2001 12:52p	2,673	sfnew.c
12/28/2001 12:52p	288	sfnotify.c
12/28/2001 12:52p	1,094	sfnputc.c
12/28/2001 12:52p	4,341	sfopen.c
12/28/2001 12:52p	5,246	sfpkrd.c
12/28/2001 12:52p	4,603	sfpoll.c
12/28/2001 12:52p	7,203	sfpool.c
12/28/2001 12:52p	6,027	sfpopen.c
12/28/2001 12:52p	1,445	sfprintf.c
12/28/2001 12:52p	877	sfprints.c
12/28/2001 12:52p	1,605	sfpurge.c

12/28/2001 12:52p	1,473 sfputd.c	
12/28/2001 12:52p	1,255 sfputl.c	
12/28/2001 12:52p	1,230 sfputm.c	
12/28/2001 12:52p	1,900 sfputr.c	
12/28/2001 12:52p	1,130 sfputu.c	
12/28/2001 12:52p	1,078 sfraise.c	
12/28/2001 12:52p	6,582 sfrd.c	
12/28/2001 12:52p	2,700 sfread.c	
12/28/2001 12:52p	3,291 sfreserve.c	
12/28/2001 12:52p	1,137 sfresize.c	
12/28/2001 12:52p	1,358 sfscanf.c	
12/28/2001 12:52p	6,219 sfseek.c	
12/28/2001 12:52p	1,470 sfset.c	
12/28/2001 12:52p	7,921 sfsetbuf.c	
12/28/2001 12:52p	2,291 sfsetfd.c	
12/28/2001 12:52p	1,810 sfsize.c	
12/28/2001 12:52p	1,734 sfsk.c	
12/28/2001 12:52p	2,018 sfstack.c	
12/28/2001 12:52p	2,606 sfstrtod.c	
12/28/2001 12:52p	2,318 sfswap.c	
12/28/2001 12:52p	3,409 sfsync.c	
12/28/2001 12:52p	11,729 sftable.c	
12/28/2001 12:52p	838 sftell.c	
12/28/2001 12:52p	8,814 sftmp.c	
12/28/2001 12:52p	1,775 sfungetc.c	
12/28/2001 12:52p	24,994 sfvprintf.c	
12/28/2001 12:52p	18,547 sfvscanf.c	
12/28/2001 12:52p	4,861 sfwr.c	
12/28/2001 12:52p	3,026 sfwrite.c	
12/28/2001 12:52p	4,637 vthread.h	

42

69 File(s)   311,492 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tools\sfio\features

5
12/28/2001 12:51p   8,960 common
12/28/2001 12:51p   12,049 sfio
12/28/2001 12:51p   9,115 stdio
          3 File(s)   30,124 bytes

10
Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tools\sfio\features\CVS

12/28/2001 12:51p   120 Entries
12/28/2001 12:51p   30 Repository
12/28/2001 12:51p   40 Root
          3 File(s)   190 bytes

15

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tools\sfio\Sfio_dc

12/28/2001 12:52p   11,797 Makefile
20
12/28/2001 12:52p   948 Makefile.am
12/28/2001 12:52p   12,334 Makefile.IN
12/28/2001 12:52p   4,137 sfdcdio.c
12/28/2001 12:52p   7,811 sfdcdos.c
12/28/2001 12:52p   4,018 sfdcfilter.c
25
12/28/2001 12:52p   41 sfdchdr.h
12/28/2001 12:52p   10,249 sfdclzw.c
12/28/2001 12:52p   3,439 sfdcseekable.c
12/28/2001 12:52p   997 sfdcslow.c
12/28/2001 12:52p   3,935 sfdcsubstream.c
30
12/28/2001 12:52p   1,905 sfdctee.c

12/28/2001 12:52p	3,703 sfdcunion.c
12/28/2001 12:52p	575 sfdisc.h
14 File(s)	65,889 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tools\sfio\Sfio_f

12/28/2001 12:52p	11,894 Makefile
12/28/2001 12:52p	992 Makefile.am
12/28/2001 12:52p	12,431 Makefile.IN
12/28/2001 12:52p	162 _sfclrerr.c
12/28/2001 12:52p	160 _sfdlen.c
12/28/2001 12:52p	150 _sfeof.c
12/28/2001 12:52p	158 _sferror.c
12/28/2001 12:52p	162 _sffileno.c
12/28/2001 12:52p	154 _sfgetc.c
12/28/2001 12:52p	156 _sfllen.c
12/28/2001 12:52p	182 _sfputc.c
12/28/2001 12:52p	191 _sfputd.c
12/28/2001 12:52p	187 _sfputl.c
12/28/2001 12:52p	224 _sfputm.c
12/28/2001 12:52p	189 _sfputu.c
12/28/2001 12:52p	135 _sfslen.c
12/28/2001 12:52p	166 _sfstacked.c
12/28/2001 12:52p	158 _sfulen.c
12/28/2001 12:52p	166 _sfvalue.c
19 File(s)	28,017 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tools\src

12/28/2001 12:52p	1,653 acyclic.1

12/28/2001	12:52p	4,462 acyclic.c
12/28/2001	12:52p	1,177 ccomps.1
12/28/2001	12:52p	3,488 ccomps.c
12/28/2001	12:52p	1,947 colorize.1
12/28/2001	12:52p	5,295 colorize.c
12/28/2001	12:52p	16,451 colortbl.h
12/28/2001	12:52p	1,579 colxlate.c
12/28/2001	12:52p	1,545 gc.1
12/28/2001	12:52p	5,815 gc.c
12/28/2001	12:52p	2,879 ingraphs.c
12/28/2001	12:52p	657 ingraphs.h
12/28/2001	12:52p	21,411 Makefile
12/28/2001	12:52p	2,353 Makefile.am
12/28/2001	12:52p	21,972 Makefile.IN
12/28/2001	12:52p	361 nop.1
12/28/2001	12:52p	1,518 nop.c
12/28/2001	12:52p	1,616 sccmap.1
12/28/2001	12:52p	8,094 sccmap.c
12/28/2001	12:52p	1,195 tred.1
12/28/2001	12:52p	2,719 tred.c
12/28/2001	12:52p	1,490 unflatten.1
12/28/2001	12:52p	4,670 unflatten.c

           23 File(s)   114,347 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tools\vmalloc

12/28/2001	12:52p	3,477 ast_common.h
12/28/2001	12:52p	11,917 Makefile
12/28/2001	12:52p	928 Makefile.am
12/28/2001	12:52p	12,454 Makefile.IN

12/28/2001	12:52p	9,135 malloc.c
12/28/2001	12:52p	808 README
12/28/2001	12:52p	8,159 vmalloc.h
12/28/2001	12:52p	29,378 vmbest.c
12/28/2001	12:52p	1,170 vmclear.c
12/28/2001	12:52p	1,496 vmclose.c
12/28/2001	12:52p	868 vmdcheap.c
12/28/2001	12:52p	15,132 vmdebug.c
12/28/2001	12:52p	635 vmdisc.c
12/28/2001	12:52p	1,017 vmexit.c
12/28/2001	12:52p	15,733 vmhdr.h
12/28/2001	12:52p	9,222 vmlast.c
12/28/2001	12:52p	3,838 vmopen.c
12/28/2001	12:52p	6,313 vmpool.c
12/28/2001	12:52p	6,366 vmprivate.c
12/28/2001	12:52p	15,618 vmprofile.c
12/28/2001	12:52p	379 vmregion.c
12/28/2001	12:52p	680 vmsegment.c
12/28/2001	12:52p	781 vmset.c
12/28/2001	12:52p	2,209 vmstat.c
12/28/2001	12:52p	256 vmstrdup.c
12/28/2001	12:52p	4,072 vmtrace.c
12/28/2001	12:52p	1,011 vmwalk.c

27 File(s)   163,052 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tools\vmalloc\features

12/28/2001	12:52p	8,960 common
12/28/2001	12:52p	1,998 vmalloc

2 File(s)   10,958 bytes

Directory of F:\Send\ExtLibraries\graphviz-1.7.7\tools\vmalloc\features\CVS

12/28/2001	12:52p	84 Entries
12/28/2001	12:52p	33 Repository
12/28/2001	12:52p	40 Root
	3 File(s)	157 bytes

Directory of F:\Send\ExtLibraries\jaxp-1.1

12/28/2001	12:52p	256,484 crimson.jar.b64
12/28/2001	12:52p	2,717 install.html
12/28/2001	12:52p	38,924 jaxp.jar.b64
12/28/2001	12:52p	2,739 License-ASF
12/28/2001	12:52p	11,407 License-RI.html
12/28/2001	12:52p	4,826 License-W3C.html
12/28/2001	12:52p	7,401 readme.html
12/28/2001	12:52p	9,028 relnotes.html
12/28/2001	12:52p	1,098,646 xalan.jar.b64
	9 File(s)	1,432,172 bytes

Directory of F:\Send\ExtLibraries\jdk1.3.1\include

12/28/2001	12:52p	7,839 jawt.h
12/28/2001	12:52p	68,634 jni.h
12/28/2001	12:52p	38,119 jvmdi.h
12/28/2001	12:52p	22,693 jvmpi.h
	4 File(s)	137,285 bytes

Directory of F:\Send\ExtLibraries\jdk1.3.1\include\win32

```
12/28/2001  12:52p              960 jawt_md.h
12/28/2001  12:52p              518 jni_md.h
            2 File(s)        1,478 bytes
```

Directory of F:\Send\ExtLibraries\jdom-b7

```
12/28/2001  12:52p              677 build.bat
12/28/2001  12:52p              913 build.sh
12/28/2001  12:52p           10,907 build.xml
12/28/2001  12:52p              400 build11.bat
12/28/2001  12:52p              545 build11.sh
12/28/2001  12:52p           20,969 CHANGES.txt
12/28/2001  12:52p              379 COMMITTERS.txt
12/28/2001  12:52p            2,581 LICENSE.txt
12/28/2001  12:52p            3,215 README.txt
12/28/2001  12:52p           15,391 TODO.txt
           10 File(s)       55,977 bytes
```

Directory of F:\Send\ExtLibraries\jdom-b7\build

```
12/28/2001  12:52p          145,830 jdom.jar.b64
            1 File(s)      145,830 bytes
```

Directory of F:\Send\ExtLibraries\Libs\pc\GraphVizLib

```
12/28/2001  12:52p            1,056 edbuild-sh
12/28/2001  12:52p           14,353 GraphVizLib.dsp
            2 File(s)       15,409 bytes
```

Directory of F:\Send\ExtLibraries\Libs\pc\libsndfile

12/28/2001 12:52p	7,658	libsndfile.dsp
1 File(s)	7,658 bytes	

Directory of F:\Send\ExtLibraries\libsndfile

12/28/2001 12:52p	8,453	acconfig.h
12/28/2001 12:52p	18,853	aclocal.m4
12/28/2001 12:52p	638	AUTHORS
12/28/2001 12:52p	39,843	ChangeLog
12/28/2001 12:52p	1,503	check_libsndfile.py
12/28/2001 12:52p	34,268	config.guess
12/28/2001 12:52p	26,511	config.sub
12/28/2001 12:52p	87,543	configure
12/28/2001 12:52p	4,895	configure.in
12/28/2001 12:52p	27,021	COPYING
12/28/2001 12:52p	8,013	INSTALL
12/28/2001 12:52p	2,305	install-sh
12/28/2001 12:52p	1,587	libsndfile.spec
12/28/2001 12:52p	1,589	libsndfile.spec.in
12/28/2001 12:52p	100,826	ltconfig
12/28/2001 12:52p	114,790	ltmain.sh
12/28/2001 12:52p	168	Makefile.am
12/28/2001 12:52p	11,694	Makefile.in
12/28/2001 12:52p	6,462	missing
12/28/2001 12:52p	772	mkinstalldirs
12/28/2001 12:52p	3,030	NEWS
12/28/2001 12:52p	2,237	README
12/28/2001 12:52p	170	reconf

12/28/2001 12:52p   1,804 TODO

      24 File(s)   504,975 bytes

Directory of F:\Send\ExtLibraries\libsndfile\doc

12/28/2001 12:52p   18,765 api.html

12/28/2001 12:52p   1,903 bugs.html

12/28/2001 12:52p   39,261 ChangeLog

12/28/2001 12:52p   12,380 index.html

12/28/2001 12:52p   99 Makefile.am

12/28/2001 12:52p   4,775 Makefile.in

12/28/2001 12:52p   3,030 NEWS

12/28/2001 12:52p   4,450 new_file_type.HOWTO

12/28/2001 12:52p   1,261 sf_info.html

      9 File(s)   85,924 bytes

Directory of F:\Send\ExtLibraries\libsndfile\examples

12/28/2001 12:52p   874 Makefile.am

12/28/2001 12:52p   12,354 Makefile.in

12/28/2001 12:52p   2,416 make_sine.c

12/28/2001 12:52p   7,215 sfconvert.c

12/28/2001 12:52p   2,472 sfdump.c

12/28/2001 12:52p   2,116 sfhexdump.c

12/28/2001 12:52p   1,298 sfprocess.c

12/28/2001 12:52p   2,869 sndfile2oct.c

12/28/2001 12:52p   2,557 sndfile_info.c

12/28/2001 12:52p   3,150 wav32_aiff24.c

     10 File(s)   37,321 bytes

Directory of F:\Send\ExtLibraries\libsndfile\MacOS

12/28/2001	12:52p	2,335 config.h
12/28/2001	12:52p	2,442 MacOS-readme.txt
12/28/2001	12:52p	41 Makefile.am
12/28/2001	12:52p	4,706 Makefile.in

4 File(s)   9,524 bytes

Directory of F:\Send\ExtLibraries\libsndfile\src

12/28/2001	12:52p	22,235 aiff.c
12/28/2001	12:52p	27,295 alaw.c
12/28/2001	12:52p	16,173 au.c
12/28/2001	12:52p	1,089 au.h
12/28/2001	12:52p	16,082 au_g72x.c
12/28/2001	12:52p	19,912 common.c
12/28/2001	12:52p	10,043 common.h
12/28/2001	12:52p	2,122 config.h.in
12/28/2001	12:52p	30,476 float32.c
12/28/2001	12:52p	1,533 floatcast.h
12/28/2001	12:52p	10,467 ircam.c
12/28/2001	12:52p	723 Makefile.am
12/28/2001	12:52p	15,605 Makefile.in
12/28/2001	12:52p	7,990 nist.c
12/28/2001	12:52p	24,513 paf.c
12/28/2001	12:52p	85,049 pcm.c
12/28/2001	12:52p	4,788 raw.c
12/28/2001	12:52p	3,432 samplitude.c
12/28/2001	12:52p	2,870 sfendian.h
12/28/2001	12:52p	43,936 sndfile.c

12/28/2001 12:52p	8,903 sndfile.h
12/28/2001 12:52p	11 stamp-h.in
12/28/2001 12:52p	12,055 svx.c
12/28/2001 12:52p	65,646 ulaw.c
12/28/2001 12:52p	11,216 voc.c
12/28/2001 12:52p	37,252 wav.c
12/28/2001 12:52p	3,063 wav.h
12/28/2001 12:52p	19,251 wav_gsm610.c
12/28/2001 12:52p	24,617 wav_ima_adpcm.c
12/28/2001 12:52p	28,179 wav_ms_adpcm.c

       30 File(s)   556,526 bytes

Directory of F:\Send\ExtLibraries\libsndfile\src\G72x

12/28/2001 12:52p	1,968 ChangeLog
12/28/2001 12:52p	4,917 g721.c
12/28/2001 12:52p	5,655 g723_16.c
12/28/2001 12:52p	4,273 g723_24.c
12/28/2001 12:52p	5,163 g723_40.c
12/28/2001 12:52p	16,370 g72x.c
12/28/2001 12:52p	3,982 g72x.h
12/28/2001 12:52p	327 Makefile.am
12/28/2001 12:52p	8,307 Makefile.in
12/28/2001 12:52p	3,954 private.h
12/28/2001 12:52p	0 README
12/28/2001 12:52p	3,311 README.original

       12 File(s)   58,227 bytes

Directory of F:\Send\ExtLibraries\libsndfile\src\GSM610

12/28/2001 12:52p	6,053	add.c
12/28/2001 12:52p	659	ChangeLog
12/28/2001 12:52p	2,566	code.c
12/28/2001 12:52p	924	config.h
12/28/2001 12:52p	706	COPYRIGHT
12/28/2001 12:52p	1,633	decode.c
12/28/2001 12:52p	1,752	gsm.h
12/28/2001 12:52p	901	gsm_create.c
12/28/2001 12:52p	11,027	gsm_decode.c
12/28/2001 12:52p	595	gsm_destroy.c
12/28/2001 12:52p	11,877	gsm_encode.c
12/28/2001 12:52p	1,274	gsm_option.c
12/28/2001 12:52p	24,536	long_term.c
12/28/2001 12:52p	7,430	lpc.c
12/28/2001 12:52p	451	Makefile.am
12/28/2001 12:52p	9,304	Makefile.in
12/28/2001 12:52p	2,626	preprocess.c
12/28/2001 12:52p	8,195	private.h
12/28/2001 12:52p	1,680	proto.h
12/28/2001 12:52p	1,460	README
12/28/2001 12:52p	11,548	rpe.c
12/28/2001 12:52p	10,831	short_term.c
12/28/2001 12:52p	2,210	table.c
12/28/2001 12:52p	495	unproto.h
24 File(s)	120,733 bytes	

Directory of F:\Send\ExtLibraries\libsndfile\tests

12/28/2001 12:52p	6,490	alaw_test.c
12/28/2001 12:52p	1,683	check_log_buffer.c
12/28/2001 12:52p	942	check_log_buffer.h
12/28/2001 12:52p	6,625	command_test.c
12/28/2001 12:52p	1,603	error_test.c
12/28/2001 12:52p	11,189	floating_point_test.c
12/28/2001 12:52p	67,385	lossy_comp_test.c
12/28/2001 12:52p	5,568	Makefile.am
12/28/2001 12:52p	18,745	Makefile.in
12/28/2001 12:52p	6,286	peak_chunk_test.c
12/28/2001 12:52p	26,593	read_seek_test.c
12/28/2001 12:52p	1,636	sftest.c
12/28/2001 12:52p	1,118	sfversion.c
12/28/2001 12:52p	3,749	stdin_test.c
12/28/2001 12:52p	2,753	stdio_test.c
12/28/2001 12:52p	3,550	stdout_test.c
12/28/2001 12:52p	7,636	ulaw_test.c
12/28/2001 12:52p	49,351	write_read_test.c

18 File(s)   222,902 bytes

Directory of F:\Send\ExtLibraries\libsndfile\Win32

12/28/2001 12:52p	2,353	config.h
12/28/2001 12:52p	84	Makefile.am
12/28/2001 12:52p	4,742	Makefile.in
12/28/2001 12:52p	3,619	README-Win32.txt
12/28/2001 12:52p	1,360	README-Win32.txt.old
12/28/2001 12:52p	1,729	unistd.h

6 File(s)   13,887 bytes

Directory of F:\Send\ExtLibraries\monarch

5
12/28/2001 12:52p   6,964 license.html
12/28/2001 12:52p   2,207 readme.txt
        2 File(s)   9,171 bytes

Directory of F:\Send\ExtLibraries\monarch\lib

10
12/28/2001 12:52p   167,738 mgraph.jar.b64
        1 File(s)   167,738 bytes

Directory of F:\Send\ExtLibraries\zlib-1.1.3

15
12/28/2001 12:52p   1,293 adler32.c
12/28/2001 12:52p   9,869 algorithm.txt
12/28/2001 12:52p   24,017 ChangeLog
12/28/2001 12:52p   2,204 compress.c
12/28/2001 12:52p   6,840 configure
12/28/2001 12:52p   7,136 crc32.c
12/28/2001 12:52p   50,333 deflate.c
12/28/2001 12:52p   11,925 deflate.h
12/28/2001 12:52p   1,596 descrip.mms
25
12/28/2001 12:52p   16,406 example.c
12/28/2001 12:52p   2,322 FAQ
12/28/2001 12:52p   26,616 gzio.c
12/28/2001 12:52p   2,588 INDEX
12/28/2001 12:52p   12,750 infblock.c
30
12/28/2001 12:52p   1,253 infblock.h

12/28/2001 12:52p	8,052	infcodes.c
12/28/2001 12:52p	764	infcodes.h
12/28/2001 12:52p	5,815	inffast.c
12/28/2001 12:52p	505	inffast.h
12/28/2001 12:52p	9,079	inffixed.h
12/28/2001 12:52p	10,022	inflate.c
12/28/2001 12:52p	16,529	inftrees.c
12/28/2001 12:52p	2,674	inftrees.h
12/28/2001 12:52p	2,086	infutil.c
12/28/2001 12:52p	3,777	infutil.h
12/28/2001 12:52p	5,472	Makefile
12/28/2001 12:52p	5,451	Makefile.in
12/28/2001 12:52p	3,927	Makefile.riscos
12/28/2001 12:52p	2,548	maketree.c
12/28/2001 12:52p	3,899	Make_vms.com
12/28/2001 12:52p	8,170	minigzip.c
12/28/2001 12:52p	7,254	README
12/28/2001 12:52p	44,886	trees.c
12/28/2001 12:52p	8,572	trees.h
12/28/2001 12:52p	2,039	uncompr.c
12/28/2001 12:52p	8,089	zconf.h
12/28/2001 12:52p	3,387	zlib.3
12/28/2001 12:52p	41,791	zlib.h
12/28/2001 12:52p	5,457	zutil.c
12/28/2001 12:52p	5,780	zutil.h
40 File(s)	393,173 bytes	

Directory of F:\Send\ExtLibraries\zlib-1.1.3\amiga

12/28/2001 12:52p	2,199	Makefile.pup

12/28/2001 12:52p   1,881 Makefile.sas

      2 File(s)   4,080 bytes

Directory of F:\Send\ExtLibraries\zlib-1.1.3\contrib

12/28/2001 12:52p   1,341 README.contrib
12/28/2001 12:52p   2,635 visual-basic.txt

      2 File(s)   3,976 bytes

Directory of F:\Send\ExtLibraries\zlib-1.1.3\contrib\asm386

12/28/2001 12:52p   14,823 gvmat32.asm
12/28/2001 12:52p   7,196 gvmat32c.c
12/28/2001 12:52p   59 mkgvmt32.bat
12/28/2001 12:52p   2,482 zlibvc.def
12/28/2001 12:52p   17,177 zlibvc.dsp
12/28/2001 12:52p   726 zlibvc.dsw

      6 File(s)   42,463 bytes

Directory of F:\Send\ExtLibraries\zlib-1.1.3\contrib\asm586

12/28/2001 12:52p   10,582 match.S
12/28/2001 12:52p   1,658 README.586

      2 File(s)   12,240 bytes

Directory of F:\Send\ExtLibraries\zlib-1.1.3\contrib\asm686

12/28/2001 12:52p   9,336 match.S
12/28/2001 12:52p   1,083 README.686

      2 File(s)   10,419 bytes

Directory of F:\Send\ExtLibraries\zlib-1.1.3\contrib\delphi

12/28/2001 12:52p	1,005	zlib.mak
12/28/2001 12:52p	5,568	zlibdef.pas
2 File(s)	6,573 bytes	

Directory of F:\Send\ExtLibraries\zlib-1.1.3\contrib\delphi2

12/28/2001 12:52p	5,287	d_zlib.bpr
12/28/2001 12:52p	498	d_zlib.cpp
12/28/2001 12:52p	670	readme.txt
12/28/2001 12:52p	817	zlib.bpg
12/28/2001 12:52p	5,338	zlib.bpr
12/28/2001 12:52p	607	zlib.cpp
12/28/2001 12:52p	16,644	zlib.pas
12/28/2001 12:52p	4,581	zlib32.bpr
12/28/2001 12:52p	1,488	zlib32.cpp
9 File(s)	35,930 bytes	

Directory of F:\Send\ExtLibraries\zlib-1.1.3\contrib\iostream

12/28/2001 12:52p	550	test.cpp
12/28/2001 12:52p	5,375	zfstream.cpp
12/28/2001 12:52p	2,639	zfstream.h
3 File(s)	8,564 bytes	

Directory of F:\Send\ExtLibraries\zlib-1.1.3\contrib\iostream2

12/28/2001 12:52p	9,590	zstream.h

12/28/2001 12:52p   727 zstream_test.cpp

      2 File(s)   10,317 bytes

Directory of F:\Send\ExtLibraries\zlib-1.1.3\contrib\minizip

12/28/2001 12:52p   1,341 ChangeLogUnzip

12/28/2001 12:52p   466 Makefile

12/28/2001 12:52p   11,729 miniunz.c

12/28/2001 12:52p   7,830 minizip.c

12/28/2001 12:52p   1,412 readme.txt

12/28/2001 12:52p   35,835 unzip.c

12/28/2001 12:52p   540 unzip.def

12/28/2001 12:52p   10,205 unzip.h

12/28/2001 12:52p   22,005 zip.c

12/28/2001 12:52p   180 zip.def

12/28/2001 12:52p   5,240 zip.h

12/28/2001 12:52p   2,482 zlibvc.def

12/28/2001 12:52p   17,177 zlibvc.dsp

12/28/2001 12:52p   726 zlibvc.dsw

      14 File(s)   117,168 bytes

Directory of F:\Send\ExtLibraries\zlib-1.1.3\contrib\untgz

12/28/2001 12:52p   237 Makefile

12/28/2001 12:52p   1,194 makefile.w32

12/28/2001 12:52p   11,361 untgz.c

      3 File(s)   12,792 bytes

Directory of F:\Send\ExtLibraries\zlib-1.1.3\msdos

12/28/2001	12:52p	2,868 Makefile.b32
12/28/2001	12:52p	3,422 Makefile.bor
12/28/2001	12:52p	2,636 Makefile.dj2
12/28/2001	12:52p	1,507 Makefile.emx
12/28/2001	12:52p	3,416 Makefile.msc
12/28/2001	12:52p	2,901 Makefile.tc
12/28/2001	12:52p	2,750 Makefile.w32
12/28/2001	12:52p	2,814 Makefile.wat
12/28/2001	12:52p	1,857 zlib.def
12/28/2001	12:52p	927 zlib.rc

10 File(s)   25,098 bytes

Directory of F:\Send\ExtLibraries\zlib-1.1.3\nt

12/28/2001	12:52p	3,023 Makefile.emx
12/28/2001	12:52p	2,116 Makefile.gcc
12/28/2001	12:52p	2,326 Makefile.nt
12/28/2001	12:52p	1,749 zlib.dnt

4 File(s)   9,214 bytes

Directory of F:\Send\ExtLibraries\zlib-1.1.3\os2

| 12/28/2001 | 12:52p | 4,246 Makefile.os2 |
| 12/28/2001 | 12:52p | 829 zlib.def |

2 File(s)   5,075 bytes

Directory of F:\Send\ExtTools\base64-1.3

12/28/2001 12:52p	3,526	base64.1
12/28/2001 12:52p	6,812	base64.c
12/28/2001 12:52p	17,513	base64.w
12/28/2001 12:52p	598	config.h.in
12/28/2001 12:52p	48,728	configure
12/28/2001 12:52p	632	configure.in
12/28/2001 12:52p	294	COPYING
12/28/2001 12:52p	4,990	getopt.c
12/28/2001 12:52p	334	getopt.h
12/28/2001 12:52p	5,771	index.html
12/28/2001 12:52p	843	INSTALL
12/28/2001 12:52p	5,003	install-sh
12/28/2001 12:52p	6,415	Makefile.in
12/28/2001 12:52p	1,446	README
12/28/2001 12:52p	8,974	rfc1341.html
12/28/2001 12:52p	7,511	rfc1341.txt
16 File(s)	119,390 bytes	

Directory of F:\Send\Tools\AudioPlayer

12/28/2001 12:52p	1,403	AudioPlayer.cpp
12/28/2001 12:52p	5,371	AudioPlayer.dsp
12/28/2001 12:52p	1,265	AudioPlayer.dsw
12/28/2001 12:52p	722	AudioPlayer.h
12/28/2001 12:52p	2,806	AudioPlayerJNI.cpp
12/28/2001 12:52p	2,255	AudioPlayerJNI.h
12/28/2001 12:52p	4,102	CPlayer.cpp
12/28/2001 12:52p	1,268	CPlayer.h

12/28/2001 12:52p   90 makejni.bat

12/28/2001 12:52p   1,643 ReadMe.txt

         10 File(s)   20,925 bytes

5   Directory of F:\Send\Tools\DDLOpen

12/28/2001 12:52p   5,399 DDLOpen.cpp

12/28/2001 12:52p   4,840 DDLOpen.dsp

12/28/2001 12:52p   9,736 EnumProc.cpp

10   12/28/2001 12:52p   578 EnumProc.h

12/28/2001 12:52p   1,047 MediaMap.h

12/28/2001 12:52p   1,619 ReadMe.txt

12/28/2001 12:52p   294 StdAfx.cpp

12/28/2001 12:52p   802 StdAfx.h

15   8 File(s)   24,315 bytes

        Directory of F:\Send\Tools\GraphViz

12/28/2001 12:52p   625 GraphViz.cpp

20   12/28/2001 12:52p   5,341 GraphViz.dsp

12/28/2001 12:52p   1,259 GraphViz.dsw

12/28/2001 12:52p   5,908 GraphVizJNI.cpp

12/28/2001 12:52p   701 GraphVizJNI.h

12/28/2001 12:52p   88 makejni.bat

25   12/28/2001 12:52p   1,625 ReadMe.txt

         7 File(s)   15,547 bytes

        Directory of F:\Send\Tools\Talks

30   12/28/2001 12:52p   1,035 buildme.bat

12/28/2001 12:52p   544 Talks.html

      2 File(s)   1,579 bytes

Directory of F:\Send\Tools\Talks\classes\jellyvision\uber1\graphics

12/28/2001 12:52p   1,280 addsfx.gif.b64

12/28/2001 12:52p   1,280 approveaudio.gif.b64

12/28/2001 12:52p   1,296 approvevideo.gif.b64

12/28/2001 12:52p   1,264 audio.gif.b64

12/28/2001 12:52p   1,284 audiomoment.gif.b64

12/28/2001 12:52p   1,222 audiomomentnomedia.gif.b64

12/28/2001 12:52p   1,284 audiomomentsomemedia.gif.b64

12/28/2001 12:52p   1,246 downarrow.gif.b64

12/28/2001 12:52p   1,246 folder1.gif.b64

12/28/2001 12:52p   1,258 folder2.gif.b64

12/28/2001 12:52p   1,320 nixaudio.gif.b64

12/28/2001 12:52p   1,332 nixvideo.gif.b64

12/28/2001 12:52p   1,246 nomedia.gif.b64

12/28/2001 12:52p   1,206 spin1.gif.b64

12/28/2001 12:52p   1,198 spin2.gif.b64

12/28/2001 12:52p   1,206 spin3.gif.b64

12/28/2001 12:52p   1,198 spin4.gif.b64

12/28/2001 12:52p   1,272 textmoment.gif.b64

12/28/2001 12:52p   1,268 video.gif.b64

      19 File(s)   23,906 bytes

Directory of F:\Send\Tools\Talks\src

12/28/2001 12:52p   501 app.xml

12/28/2001 12:52p   101 MANIFEST.MF

12/28/2001	12:52p	95 run.bat
12/28/2001	12:52p	18,698 sfx.aif.b64
12/28/2001	12:52p	62 template.wav.b64
12/28/2001	12:52p	1,031 Trap.java
	6 File(s)	20,488 bytes

Directory of F:\Send\Tools\Talks\src\jellyvision\uber1

12/28/2001	12:52p	3,586 AppPrefs.java
12/28/2001	12:52p	1,568 AppUndoManager.java
12/28/2001	12:52p	7,551 CommandWindow.java
12/28/2001	12:52p	1,820 MainApp.java
12/28/2001	12:52p	14,708 MainFrame.java
12/28/2001	12:52p	5,804 MediaView.java
12/28/2001	12:52p	5,893 PlaybackView.java
12/28/2001	12:52p	10,479 TestLink.java
12/28/2001	12:52p	489 ToolWindow.java
	9 File(s)	51,898 bytes

Directory of F:\Send\Tools\Talks\src\jellyvision\uber1\editor

12/28/2001	12:52p	4,782 AddPrefScreen.java
12/28/2001	12:52p	12,709 ConditionCellEditor.java
12/28/2001	12:52p	2,335 ConditionPref.java
12/28/2001	12:52p	2,540 ConditionPrefView.java
12/28/2001	12:52p	6,556 DialogueCellEditor.java
12/28/2001	12:52p	1,969 DialoguePref.java
12/28/2001	12:52p	2,540 DialoguePrefView.java
12/28/2001	12:52p	2,449 FieldEditor.java
12/28/2001	12:52p	1,826 FocusWatcher.java

12/28/2001 12:52p	662	IEditor.java
12/28/2001 12:52p	10,815	NoteText.java
12/28/2001 12:52p	3,597	OptionEditor.java
12/28/2001 12:52p	1,118	Pref.java
12/28/2001 12:52p	5,506	ScriptCommands.java
12/28/2001 12:52p	6,657	ScriptPrefs.java
12/28/2001 12:52p	16,505	ScriptView.java
12/28/2001 12:52p	3,682	TextEditor.java

            17 File(s)   86,248 bytes

Directory of F:\Send\Tools\Talks\src\jellyvision\uber1\flowchart

12/28/2001 12:52p	11,665	ContextAdapter.java
12/28/2001 12:52p	7,594	CurvedLink.java
12/28/2001 12:52p	827	DisableLayout.java
12/28/2001 12:52p	9,678	FixedDiamondNode.java
12/28/2001 12:52p	1,490	FlowchartColors.java
12/28/2001 12:52p	1,468	GraphView2.java
12/28/2001 12:52p	11,832	GraphViz.java
12/28/2001 12:52p	785	IfEraser.java
12/28/2001 12:52p	9,251	IfLink.java
12/28/2001 12:52p	3,455	IfPin.java
12/28/2001 12:52p	1,719	LabelMeasure.java
12/28/2001 12:52p	4,043	LayoutInfo.java
12/28/2001 12:52p	3,927	LinkDragStrategy.java
12/28/2001 12:52p	6,642	LinkFactory.java
12/28/2001 12:52p	20,229	Model.java
12/28/2001 12:52p	1,847	OutputPin.java
12/28/2001 12:52p	792	Pin.java
12/28/2001 12:52p	1,762	PinTable.java

12/28/2001 12:52p	2,871	StubView.java
12/28/2001 12:52p	9,318	ViewFactory.java
12/28/2001 12:52p	9,886	WordBreakBlock.java
12/28/2001 12:52p	736	WordWrapTextBox.java
12/28/2001 12:52p	3,654	ZoomManager.java

23 File(s)   125,471 bytes

Directory of F:\Send\Tools\Talks\src\jellyvision\uber1\flowchart\change

12/28/2001 12:52p	1,458	AliasChange.java
12/28/2001 12:52p	1,571	AliasChangeCondition.java
12/28/2001 12:52p	1,700	AudioMomentDescriptionChange.java
12/28/2001 12:52p	843	CellCommand.java
12/28/2001 12:52p	1,313	CellCreated.java
12/28/2001 12:52p	1,558	CellCreatedBatch.java
12/28/2001 12:52p	1,580	CellDeleted.java
12/28/2001 12:52p	1,707	ConditionAdd.java
12/28/2001 12:52p	1,353	ConditionCurrentChange.java
12/28/2001 12:52p	1,236	ConditionDescriptionChange.java
12/28/2001 12:52p	1,852	ConditionRemove.java
12/28/2001 12:52p	1,621	HostChange.java
12/28/2001 12:52p	2,637	LinkChange.java
12/28/2001 12:52p	995	MediaChoice.java
12/28/2001 12:52p	1,341	OptionDescriptionChange.java
12/28/2001 12:52p	2,803	OptionLinkChange.java

16 File(s)   25,568 bytes

Directory of F:\Send\Tools\Talks\src\jellyvision\uber1\media

12/28/2001 12:52p	804	AssetNode.java

12/28/2001 12:52p	3,110	AssetTree.java
12/28/2001 12:52p	8,658	AssetView.java
12/28/2001 12:52p	2,513	AudioClip.java
12/28/2001 12:52p	34,536	AudioMomentEditor.java
12/28/2001 12:52p	1,872	AudioMomentNode.java
12/28/2001 12:52p	4,966	ComplexCellNode.java
12/28/2001 12:52p	20,490	CueCard.java
12/28/2001 12:52p	1,080	FolderNode.java
12/28/2001 12:52p	4,227	MediaMap.java
12/28/2001 12:52p	1,822	MediaNode.java
12/28/2001 12:52p	1,503	MenuMap.java
12/28/2001 12:52p	1,071	MomentEditor.java
12/28/2001 12:52p	3,354	OrphanFolderNode.java

14 File(s)   90,006 bytes

Directory of F:\Send\Tools\Talks\src\jellyvision\uber1\media\change

12/28/2001 12:52p	1,062	AudioMomentDescriptionChange.java
12/28/2001 12:52p	1,006	AudioMomentReference.java
12/28/2001 12:52p	1,007	AudioMomentRemove.java
12/28/2001 12:52p	796	HostChange.java
12/28/2001 12:52p	780	VersionChange.java

5 File(s)   4,651 bytes

Directory of F:\Send\Tools\Talks\src\jellyvision\uber1\model

12/28/2001 12:52p	800	AliasCell.java
12/28/2001 12:52p	3,891	AlphaNumericIDTable.java
12/28/2001 12:52p	835	AssetInfo.java
12/28/2001 12:52p	8,340	AudioMoment.java

12/28/2001 12:52p	2,819	AudioMomentTable.java
12/28/2001 12:52p	3,447	AudioVersion.java
12/28/2001 12:52p	5,002	Cell.java
12/28/2001 12:52p	5,152	CellTable.java
12/28/2001 12:52p	1,542	CommandQueue.java
12/28/2001 12:52p	729	ComplexCell.java
12/28/2001 12:52p	995	ConditionAlias.java
12/28/2001 12:52p	13,554	ConditionCell.java
12/28/2001 12:52p	15,111	Context.java
12/28/2001 12:52p	1,437	Controller.java
12/28/2001 12:52p	2,789	DefaultComplexCell.java
12/28/2001 12:52p	2,568	DeleteCommand.java
12/28/2001 12:52p	3,653	DialogueCell.java
12/28/2001 12:52p	1,675	DragAudioMomentInfo.java
12/28/2001 12:52p	2,224	FlowchartSync.java
12/28/2001 12:52p	898	MediaSync.java
12/28/2001 12:52p	640	MediaType.java
12/28/2001 12:52p	1,767	ModelUndoCommand.java
12/28/2001 12:52p	734	NodeType.java
12/28/2001 12:52p	4,675	ProjectFile.java
12/28/2001 12:52p	4,605	ProjectFileUI.java
12/28/2001 12:52p	1,550	ReDeleteCommand.java
12/28/2001 12:52p	966	SingleLinkAlias.java
12/28/2001 12:52p	4,117	SingleLinkCell.java
12/28/2001 12:52p	3,822	SinglePath.java
12/28/2001 12:52p	2,110	StateCommand.java
12/28/2001 12:52p	1,005	UndoController.java
12/28/2001 12:52p	1,942	UndoNames.java
12/28/2001 12:52p	1,225	XMLTags.java

33 File(s)   106,619 bytes

Directory of F:\Send\Tools\Talks\src\jellyvision\uber1\model\change

12/28/2001 12:52p	851	AliasChange.java
12/28/2001 12:52p	934	AliasChangeCondition.java
12/28/2001 12:52p	880	AudioMomentDescriptionChange.java
12/28/2001 12:52p	1,054	AudioMomentRemove.java
12/28/2001 12:52p	776	CellCommand.java
12/28/2001 12:52p	1,790	CellCreated.java
12/28/2001 12:52p	1,075	ConditionAdd.java
12/28/2001 12:52p	868	ConditionDescriptionChange.java
12/28/2001 12:52p	985	ConditionRemove.java
12/28/2001 12:52p	795	HostChange.java
12/28/2001 12:52p	1,887	LinkChange.java
12/28/2001 12:52p	947	OptionCommand.java
12/28/2001 12:52p	875	OptionDescriptionChange.java
12/28/2001 12:52p	2,100	OptionLinkChange.java

14 File(s)   15,817 bytes

Directory of F:\Send\Tools\Talks\src\jellyvision\uber1\playback

12/28/2001 12:52p	6,147	DisplayDocument.java
12/28/2001 12:52p	4,355	Playback.java
12/28/2001 12:52p	650	PlayCell.java
12/28/2001 12:52p	3,621	PlayCondition.java
12/28/2001 12:52p	4,872	PlayDialogue.java
12/28/2001 12:52p	3,398	RandomNoRepeat.java
12/28/2001 12:52p	2,894	TextDisplay.java
12/28/2001 12:52p	2,854	TimeLine.java

8 File(s)   28,791 bytes

Directory of F:\Send\Tools\Talks\src\jellyvision\uber1\utils

12/28/2001 12:52p	3,169	AudioPlayer.java
12/28/2001 12:52p	2,319	CenterDeleteString.java
12/28/2001 12:52p	1,863	DragLinkStart.java
12/28/2001 12:52p	2,065	DragLinkTarget.java
12/28/2001 12:52p	1,624	GlassPane.java
12/28/2001 12:52p	1,508	ReadOnlyListIterator.java
12/28/2001 12:52p	1,661	StyleRun.java
12/28/2001 12:52p	3,310	TextMeasure.java
12/28/2001 12:52p	4,808	UberIcon.java
12/28/2001 12:52p	1,558	Utilities.java

             10 File(s)   23,885 bytes

Total Files Listed:

        1505 File(s)   12,813,537 bytes
           0 Dir(s)   0 bytes free

Background

Flowcharts are often used to show a graphical representation of cells. Flowcharts can be prepared by hand using pencil and paper or can be prepared electronically using a computer. Some software applications require a user to build a flowchart by drawing graphical shapes and then typing text into each graphical shape. If there are many branches in the flowchart, it can be difficult for a user to isolate a single path among the various paths. This can happen, for example, if the user is creating a flowchart to structurally represent a multimedia experience since a reasonably sophisticated experience can generate a flowchart that is quite large and unwieldy, with hundreds or thousands of cells and complex branching between the cells. Another difficulty encountered with structurally representing a multimedia experience is that creating a flowchart using existing tools can pull creative focus away from developing the

experience. One approach to author-centric multimedia creation is presented in U.S. Patent No. 6,100,881 to Gibbons et al. However, among its deficiencies as a multimedia creation tool, the approach described in Gibbons et al. is not directed to flowcharts.

5   There is a need, therefore, for a method that can be used to overcome the disadvantages discussed above.

Summary

The present invention is defined by the following claims, and nothing in this section should be taken as a limitation on those claims.

10   By way of introduction, the preferred embodiments described below provide methods for identifying cells in a path in a flowchart and for synchronizing graphical and textual views of a flowchart. In one preferred embodiment, a method for identifying cells in a path in a flowchart is provided comprising the acts of displaying a flowchart comprising a plurality of cells, selecting a cell in the flowchart, determining a path comprising the selected cell, and identifying at least some of the cells in the path. In another preferred embodiment, a method for synchronizing graphical and textual views of

15   a flowchart is provided. This method comprises the acts of displaying a graphical view of a flowchart comprising a plurality of cells in a first display region, displaying a textual view of at least some cells in the flowchart in a second display region, and in response to input received in either the first or second display regions, applying the input to both the

20   first and second display regions. Other preferred embodiments are provided, and each of the preferred embodiments can be used alone or in combination with one another.

The preferred embodiments will now be described with reference to the attached drawings.

Brief Description of the Drawings

25   Figure 1 is an illustration of a preferred embodiment in which a path from cell 1 to cell 12 is identified in first and second display regions.

Figure 2 is an illustration of a preferred embodiment in which a path from cell 1 to cell 3 is identified in first and second display regions.

Figure 3 is an illustration of a preferred embodiment in which a path from cell 1 to cell 12 is identified in first and second display regions.

Figure 4 is an illustration of a preferred embodiment in which a path from cell 1 through cell 3 to cell 10 is identified in first and second display regions.

Figure 5 is an illustration of a preferred embodiment in which a path from cell 1 through cell 7 to cell 10 is identified in first and second display regions.

Figures 6A and 6B are illustrations of a preferred embodiment in which a new cell is inserted in Structure and Script Windows.

Figure 7 is an illustration of a preferred embodiment in which a new conditional cell is inserted in Structure and Script Windows below the cell created in Figures 6A and 6B.

Figure 8 is an illustration of a preferred embodiment in which a current path from the conditional cell created in Figure 7 is indicated in both the Script Window and the Structure Window.

Figure 9 is an illustration of a preferred embodiment in which additional cells have been created in the current path indicated in the Script Window of Figure 8.

Figure 10 is an illustration of a preferred embodiment in which a different path from the conditional cell created in Figure 7 is indicated in both the Script Window and the Structure Window.

Figure 11 is an illustration of a preferred embodiment in which cell 4 has been deleted from the Structure and Script Windows.

Detailed Description of the Presently Preferred Embodiments

Introduction

The preferred embodiments described herein are preferably implemented using software and/or hardware components. For example, the preferred embodiments can be implemented with a software application (*i.e.*, computer-readable program code) running on a processor of a general-purpose computer. Alternatively, some or all of the

functionality of the application can be implemented with application-specific hardware components. For simplicity, the term "application" shall be used herein to refer generally to the entity (be it software and/or hardware) used to implement the preferred embodiments described below. The term "tool" shall be used interchangeably with the term "application."

Turning now to the drawings, Figure 1 is an illustration of a display output of an application of a preferred embodiment. Here, the application displays two display regions 100, 200. As used herein, the term "display region" refers to an area of display on one or more display devices (*e.g.,* computer monitors). Each display region 100, 200 can be a separate window, or the display regions 100, 200 can be different areas in a single window. The first and second display regions 100, 200 can be fixed or movable and can be non-overlapping (as in Figure 1) or can overlap each other. Additionally, the first and second display regions 100, 200 can be alternately shown (one than the other) in response to a command from the application and/or in response to a command from the user. The first display region 100 will sometimes be referred to herein as the "Structure Window," and the second display region 200 will sometimes be referred to herein as the "Script Window."

As shown in Figure 1, the application displays a flowchart 150 in the first display region 100. As used herein, the term "flowchart" refers to a series of linked graphical symbols or cells. The lines in the flowchart show how the cells are interconnected, and the cells are arranged in the flowchart in the order in which they are traversed in operation. The first display region 100 is referred to as the "Structure Window" because it displays the graphical representation (*i.e.,* the cells and the connecting lines) of the flowchart 150. In Figure 1, the flowchart 150 is displayed in its entirety in the first display region 100. It should be noted that a flowchart is displayed in the first display region 100 even if only part of the flowchart is visible at one time in the first display region 100. For example, if the flowchart were larger than the first display region 100, only a portion of the flowchart would be visible in the first display region 100. In this situation, a scroll bar and/or other navigation devices can be provided in the first display region 100 to allow a user to select which part of the flowchart is visible.

The flowchart 150 in Figure 1 comprises a plurality of cells (cells 1-12), some of which are rectangular-shaped and others of which are diamond-shaped. The rectangular-shaped cells are referred to herein as "simple cells," and the diamond-shaped cells are referred to herein as "conditional cells." A simple cell is a cell that contains a single branching link to a single cell. For example, in the flowchart 150 shown in Figure 1, simple cell 4 branches to conditional cell 5, and simple cell 6 branches to simple cell 8. Unlike a simple cell, a conditional cell contains multiple branching links to multiple cells. The branching links are associated with conditions necessary for that branching link to be followed. For example, in the flowchart 150 shown in Figure 1, conditional cell 5 branches to simple cells 6 and 7. The branch to simple cell 6 is followed if the condition "male" is true, while the branch to simple cell 7 is followed if the condition "female" is true. It should be noted that a cell can contain two or more individual cells (simple cells or conditional cells). Such a cell is referred to herein as a "group cell" and can be used to simplify the display of a flowchart by grouping multiple cells together in a single cell. In addition to simple and conditional cells, a group cell can contain other group cells (*i.e.*, groups cells can be nested) and other types of cells, such as "go to" cells, "alias" cells, and other types of cells described in the next paragraph. "Go to" cells can be used instead of a line to show the flow from that cell to another cell. In this way, "go to" cells can be used to keep a flowchart clean and readable. "Alias" cells can be used to mimic the function/operation of another cell.

The cells in a flowchart can contain any suitable content. For example, as in a traditional flowchart drawn on paper, a cell can contain text. A cell can also contain instructions that are implemented by the application (or by another application) when the cell is "played." For example, a cell can contain an instruction to trigger a piece of media, gather user input, generate visual or oral information, send/receive information or media to a database, process data, perform a calculation, or perform other functions, such as describing how and when media should be played. Examples of media assets include, but are not limited to, digital audio/video objects representing still art, animation, graphics, on-screen text, music, sound effects, or voiceover dialog. Different cells can have different durations. For example, some cells can be played after a previous cell

initiates its function, while other cells can be played after a previous cell finishes its function. (The timing of a cell can also be based on a time X before or after the beginning or end of a cell, and one cell can be played simultaneously with another cell. Timing can also be based off of a common clock. Other timing mechanisms can be used.) A cell can also provide selection choices to a user and evaluate which choice was selected. For example, when conditional cell 2 in Figure 1 is played, the user is prompted to input "yes" or "no" using a user interface device, such as a keyboard, mouse, microphone, remote control, or any other type of device. Conditional cell 2 also determines whether the user input is "yes" or "no." If the user input is "yes," the branch leading to cell 4 is followed, and the application runs a file called "Senior Citizen animation."

When played, the cells in the flowchart 150 of Figure 1 provide an interactive multimedia experience for a user. In this example, the interactive multimedia experience takes the form of an interactive conversation interface in which responses are collected from a user using an interface that simulates a real-life conversation. When the flowchart is played from its beginning, the user first hears a voice asking whether the user is over 30. Depending on the user's response, an animation of a school kid or an animation of a senior citizen is played. If the user is over 30, the user is also asked if the user is male or female. If the user is male, an audio file voicing the phrase "Howdy Grandpa" is played; if the user is female, an audio file voicing the phrase "Hi there Grandma" is played. The interactive conversation interface can be used to communicate ideas and information in an audio and/or visual environment, such as interactive computer games, commercials, guided tours, auctions, stories, and news, health, or financial services. The interface can be implemented with wired or wireless equipment that includes both audio and video output devices (such as a home computer or television) as well as with equipment that includes only an audio output device (such as a conventional telephone) or only a video output device. It is important to note that these preferred embodiments can be used in flowchart applications that are unrelated to an interactive multimedia experience. Accordingly, a specific type of cell should not be read into the claims unless explicitly recited therein.

Returning to Figure 1, the second display region 200 (the Script Window) contains a textual view 250 of some of the cells (cells 1, 2, 4, 5, 7, 8, 9, and 12) in the order in which the cells appear in the flowchart 150. The textual view shows a "description" of a cell (*e.g.*, the text that is contained in a cell, the line of dialogue that will be voiced, the description of the animation or of the SFX that will be played, etc.). The content displayed in the textual view 250 can also contain other cell "properties," such as the font of displayed text, the name of the actor who will provide the media content, the cell's timing relative to other cells, the volume at which audio content of the cell should be played, the frames per second of animation, and other information. Cell properties can also be displayed in a third display region. It should be noted that the "textual" view can also contain graphics. For example, the textual view 250 in Figure 1 contains radio buttons. As another example, text of the cell can also be supported with a graphics button next to the text that indicates the type of media in the cell (*e.g.*, a button with a little horn indicating a SFX) and is clickable to open a properties window of the cell, to playback the media, or to perform other functions.

Embodiments Related to Identifying Cells in a Path in a Flowchart

Cells 1, 2, 4, 5, 7, 8, 9, and 12 in Figure 1 represent one of many paths in the flowchart 150. As used herein, the term "path" refers to at least two cells in the flowchart that are connected to each other. In Figure 1, the path contains the first and last cells in the flowchart 150 (cells 1 and 12). However, a path does not necessarily need to include the first and/or last cells. When a flowchart contains many paths, it can be difficult for a user to follow the cells along a single path, and cells along a path can be identified in a way to assist a user in following the path in the flowchart. In Figure 1, cells along a path are identified by displaying the lines linking the cells differently (*e.g.*, in a different color, shading, or thickness) than the lines linking cells that are not along the path. (In Figure 1, the selected path is the lightest path.) Additionally, the content of the cells along the path is displayed in the second display region 200 to allow a user to read through the content of those cells in isolation from the cells in the other paths. As described in more detail below, other techniques can be used to identify cells along a path. For example, the

borders of the cells along a path and their branches can be displayed with thicker lines in the first display region 100.

To identify cells in a path, a user can individually select each of the cells along a desired path. With reference to the illustration in Figure 1, this would require a user to individually select cells 1, 2, 4, 5, 7, 8, 9, and 12. As can be seen even from the simple flowchart 150 in Figure 1, individually selecting cells along a path can be time consuming. To facilitate the selection of a path in the flowchart, the application preferably implements a method to identify cells in a path based on the selection of a single cell. With this method, after the application displays a flowchart, a user selects a single cell. In the flowchart 150 displayed in Figure 2, a user uses a pointing device (such as a mouse or trackball) to move a pointer 30 over a desired cell in the flowchart 150 and then selects that cell by pressing a selector switch (such as the mouse button). The user can select a cell using any other type of user interface device. For example, if the cells are numbered, the user can select a cell by typing in the cell number using a keyboard or by speaking the number of the cell into a microphone. Additionally, instead of the user selecting a cell, the application can automatically select a cell (*e.g.*, based on the output of some operation being run by the application or based on the output sent to the application by another application). In this example, cell 3 is selected.

Next, the application determines a path comprising the selected cell. In this preferred embodiment, the selection of a single cell is used to isolate the cells above and below the selected cell to form a single path based on the history of the cell and the history of the cells above and below it in succession. In operation, the application builds a path by determining which cells above and below a given cell were selected the last time that the given cell was selected. A path made from cells selected in this manner is referred to herein as "the last selected path." The operation of this preferred embodiment will now be illustrated in conjunction with Figures 1 and 2. When a user selects cell 3 in Figure 2, the application "walks" the flowchart to identify the cells below and above the selected cell. The application recognizes that cell 3 is the last cell in the path because there are no cells below cell 3 in the flowchart 150. Additionally, the application remembers that the last time cell 3 was selected, cell 2 was in the selected path directly

above cell 3, and that the last time cell 2 was selected, cell 1 was in the selected path directly above cell 2.

After the path has been determined, at least some of the cells in that path are identified. In Figure 2, the lines linking the cells in the path are different from those linking cells that are not in the path. Of course, other techniques of identifying the cells can be used. For example, cells can be displayed in a different color or otherwise highlighted, such as when the borders of cells in the determined path are displayed with thicker lines. Additionally, cells can be identified by changing their size with respect to other cells, such as when the identified cells are enlarged and/or the other cells are reduced in size. The application can also temporarily align the identified cells vertically to create the appearance of an additional display area in the first display region 100. In Figure 2, the cells in the path are also identified by displaying a textual view of the cells in the second display region 200. It should be noted that while Figure 2 identifies the cells along the path in two ways (by displaying the lines linking the cells in the path differently and by displaying a textual view of the cells in the second display region 200), the path can be identified using only one of these techniques or by using an additional technique. For example, a copy of the flowchart 150 can be displayed where only the cells in the path are visible and the cells that are not on the path are hidden.

Returning to the drawings, Figure 3 shows the display output after the user connects cell 3 to cell 8. Cell 8 is now the selected cell by virtue of it being the end of the new connection. The application remembers that the last time cell 3 was on the selected path (see Figure 2), cell 2 was in the selected path directly above cell 3, and cell 1 was in the selected path directly above cell 2. The application also remembers that the last time cell 8 was on the selected path (see Figure 1), cell 9 was in the selected path directly below cell 8, and the last time cell 9 was on the selected path (see Figure 1), cell 12 was in the selected path directly below cell 9. The cells along this determined path are identified as before. Assume that the user now selects cell 10 (see Figure 4). The application determines that the path above cell 10 is the same as before, and, since there are no cells below cell 10, the selected path ends at cell 10.

In this example, if the user selects any cell along the currently-selected path (*e.g.*, cell 9 in Figure 4), the selected path does not change. If, however, the user selects a cell not along the currently-selected path, such as cell 5, the application will remember that (1) the last time cell 5 was on the selected path (see Figure 1), cell 4 was in the selected

5   path directly above cell 5; (2) the last time cell 4 was on the selected path (see Figure 1), cell 2 was in the selected path directly above cell 4; and (3) the last time cell 2 was on the selected path (see Figure 4), cell 1 was in the selected path directly above cell 2. The application also remembers that (1) the last time cell 5 was on the selected path (see Figure 1), cell 7 was in the selected path directly below cell 5; (2) the last time cell 7 was

10   on the selected path (see Figure 1), cell 8 was in the selected path directly below cell 7; (3) the last time cell 8 was on the selected path (see Figure 4), cell 9 was in the selected path directly below cell 8; and (4) the last time cell 9 was on the selected path (see Figure 4), cell 10 was in the selected path directly below cell 9. The cells on this path are identified in the first display region 100 and the second display region 200 as shown in

15   Figure 5.

There are several alternatives that can be used. For example, instead of selecting the last selected path, a path can be determined based on the most-frequently selected path containing the selected cell. Other methods can be used. For example, of the many paths that contain the selected cell, the application can choose the path that most recently

20   contained the selected cell. As another example, the application can randomly determine a path comprising the selected cell or can semi-randomly determine a path comprising the selected cell, such as when part of the path is selected based upon some form of logic (*e.g.*, most frequently selected links three cells above and below the selected cell), but the rest of the path is selected at random (*e.g.*, all other links are selected randomly).

25   In the embodiment discussed above, all of the cells in a path are determined, and all of those cells are identified. In one alternate embodiment, all of the cells in a path are determined, but only some of those cells are identified. For example, for a determined path that contains both a beginning cell and an end cell, the beginning cell and/or end cell need not be identified along with the other cells in the path. In another alternate

30   embodiment, only some of the cells in a path are determined. For example, if cell 5 in

Figure 4 is selected, instead of determining which cells are both above and below cell 5 on the path from the first cell to the last cell in the flowchart, the application can determine, for example, only the cells in the path that are above cell 5, only the cells in the path that are below cell 5, or only the cells that are X cells above and below cell 5. Some or all of these cells in the determined path can then be identified.

In another alternate embodiment, instead of selecting a single cell in the flowchart, at least one additional cell is selected, and the application determines a path comprising the selected cell and the at least one additional cell. In a variation of this alternate embodiment, a user can establish a "master" cell and then select one or more additional cells. The application would then find a path between the master cell and the selected cell(s). Additionally, a path can be determined "manually" when the path determined by the application is merely a plurality of cells selected by a user.

Instead of determining a single path comprising the selected cell, some or all of the possible paths can be determined. One or more of these paths can be selected, and at least some of the cells in the selected path(s) can be identified. For example, the application can display the cells of every possible path that can lead up to and out of a selected cell, and a user could additionally select from a pop-up menu to make one or more paths pop-out. In another alternative, in addition to the single path, the application can determine N additional path(s) comprising the selected cell. At least some of the cells in each of the determined paths can be identified. In this way, the application can display the cells of the last three selected paths coming in to or out of a selected cell (*e.g.*, the textual view can show three columns, with the most current path displayed in the left-most column). As another example, when selecting a "new" current path, the cells of the "last" path can remain displayed (*e.g.*, in a different color). In this way, there are always at least two selected paths, and the cells in the last path are identified along with the cells in the new path.

In yet another alternate embodiment, an additional display region (an "Adjacencies View") displays a textual view of all the cells that lead into a selected cell and all the cells that lead out of it (*i.e.*, the cells that fan-in/fan-out from the selected cell). The top row displays the content of the fan-in cells, the middle row displays the content

of the selected cell, and the bottom row displays the content of the fan-out cells. In still another alternate embodiment, the application displays another display region that plays the output of the cells in the flowchart one cell at a time as the cells are played back. When a conditional cell is encountered, a user is prompted for input, and cells along the corresponding branch are played. The application remembers the cells that were played back and can identify some or all of these cells in the structure and/or script views.

Embodiments Related to Synchronizing

Graphical and Textual Views of a Flowchart

In creating a flowchart, the content of the cells can be entered in the flowchart itself. For example, a rectangular-shaped cell can be created, and a user can type text directly in that rectangular-shaped cell. Entering text in this manner can be difficult for some users. To overcome this problem, the preferred embodiments described below provide a text-entry process to drive the creation and modification of a flowchart. By way of overview, the application displays two display regions: one displaying a graphical view of a flowchart and the other displaying a textual view of at least some cells in the flowchart. In response to input received in either the first or second display regions, the application applies the input to both the first and second display regions, thereby synchronizing the graphical and textual views of the flowchart. Figures 6-11 will now be discussed to illustrate the operation of this preferred embodiment in creating a flowchart by incrementally entering data in cells along a path in the flowchart.

To create a flowchart, a user first creates a new project by selecting "New" from the File menu. After the user names the file, the application then presents two display regions: a Structure Window 110 and a Script Window 120 (see Figure 6A). As in the embodiments described above, the Structure Window 110 is used to display a graphical view of a flowchart, and the Script Window 120 is used to display a textual view of at least some cells in a single path in the flowchart. In this embodiment, a user can create and manipulate cells in either the first or second display regions 110, 120. When a blank document opens, a "Next Cell Prompt" (NCP) is displayed, and the user enters the type of cell he wishes into the NCP. In this example, the user typed "D" to create a simple cell (see Figure 6B). The user then can immediately start typing dialogue or other information

into the simple cell. As shown in Figure 6B, the user typed the dialogue "Are you over 30?" for the Host. In this preferred embodiment, while in a simple cell, hitting the return (or enter) key enters the text typed into the Script Window 120 into the corresponding cell on the Flowchart Window 110 and brings up another NCP in the Script Window 120 underneath the current text. In an alternate embodiment, the text typed into one window is simultaneously applied to the other window.

With reference again to example illustrated in Figure 6B, the user next types "C" in the NCP to create a conditional cell. As shown in Figure 7, the user can optionally create a label for the conditional cell (*e.g.*, overThirty). The label can be used as a variable name into which user input is stored. For example, after the user responds to the "Are you over 30?" question, the variable <<overThirty>> will have a value of either "yes" or "no." As another example, when a conditional cell is labeled "male or female," the conditional cell can select a branch based on which value (male or female) is stored in the "male or female" variable in a database. With reference again to Figure 7, the user then types in the conditions for the conditional cell (no, yes).

In this embodiment, the application assumes the writer wants to continue writing along the path of the last condition entered. The user continues creating cells along the path, as shown in Figures 8 and 9. To return to the "no" condition specified in cell 2 and create cells along that path, the user can either click on the "yes" radio button in the Script Window 120 or click on the cell below the "no" arrow in the Flowchart Window 110. The user can then add cell 3 to the flowchart, as shown in Figure 10. Note that in this embodiment, the Script Window 120 shows only cells along a single path. Accordingly, only cells 1, 2, and 3 are shown in the Script Window 120 in Figure 10. When the user selects cell 8, for example, the application determines the last-selected path using the embodiments described above, and the Script Window 120 resets itself to show this single path leading down to cell 8 (as shown in Figure 9).

If the user then wants to delete cell 4, for example, he can click on the text box in the Script Window 120 for cell 4 (or the same cell in the Structure Window 110) and hit delete. Cell 4 is then deleted from both the Script Window 120 and the Structure Window 110. Depending on how the user has set his preferences, the application can

automatically attach the cell above the deleted cell (cell 2, condition=yes) to the cell below the deleted cell (cell 5), as shown in Figure 11. The application can contain similar functionality for copying or cutting a cell from one part of the flowchart and pasting it elsewhere. Additional functionality includes, but is not limited to, editing a cell, adding a cell, deleting a cell, adding a link between cells, removing a link between cells, adding conditional branch(es), and deleting conditional branch(es). For example, to attach a cell manually to another cell, a user can click on the first cell, drag a line out of that cell, and "drop" the end of the line on the other cell. A link is then made between the two cells. As another example, to delete a link, a user can grab the arrow going into a cell, drag it off the cell, and drop it on the open flowchart. Alternatively, the user can right-click on the line and choose a "remove link" option from a pop-up window.

As described above, the functions applied to the Script Window 120 (or the Structure Window 110) are mirrored in the Structure Window 110 (or the Script Window 120). For example, if a user selects a cell on the Script Window 120 and issues a command to insert a cell, the cell will be inserted into both the Structure Window 110 and the Script Window 120 below the currently-selected cell. Similar to the ability to split a paragraph in two in a word-processor, the user can highlight part of the text within a cell in the Script Window 120 and issues a command to insert a cell, and the application will create a new cell attached to the current cell with the highlighted text. If the highlighted text includes the first character of that text, the cell is preferably inserted above the current cell; otherwise, it is preferably inserted below. It should be noted that connecting a cell from one branch of the flowchart to an entirely different branch may require the user to define the path on the Structure Window 110. However, the flow between such connected cells will appear as a single path in the Script Window 120.

There are several advantages associated with this preferred embodiment, especially if the application is used to write and edit copy for an interactive multimedia experience. Interactive multimedia experiences are often written by writers who are more accustomed to using a word processor to type in a story than using a tool to create a flowchart. With this preferred embodiment, the writer can focus primarily on developing content in the Script Window 120 (as he would if he were using a word processor), while

the application automatically creates and modifies the graphical view of the flowchart in the Structure Window 110. Additionally, from the writer's standpoint, it can be extremely difficult to visualize the linear flow through an experience by viewing the graphical view of the flowchart. A typical interactive multimedia experience consists of many prompts and decision logic after each prompt, with each decision producing a branch leading to additional processing steps. These large branching structures can be difficult to design and produce due to the unwieldy nature of the flowchart and writing tasks. The complexities of determining and managing the branching structures of a flowchart can pull creative focus away from developing its content because it is mechanically difficult to harmonize the content and the structure of an interactive program the way a great screenplay harmonizes every line of dialogue with the plot and vice-versa. However, the quality of the experience will be largely determined by whether the writer takes into account all of the possible paths and makes them flow seamlessly. Providing a Script Window 120 that at any one time represents the flow through a single path addresses this problem by making it easy for the writer to read and write each path as if it were a normal sequential storyline.

There are several alternatives that can be used with these preferred embodiments. For example, while the first and second display regions 110, 120 were displayed simultaneously in the example described above, in an alternate embodiment, the first and second display regions 110, 120 are displayed at different times. In another alternate embodiment, instead of applying the input to both display regions simultaneously, the input is applied first to one display region and later to the other. Additionally, instead of or in addition to using the keyboard, a user can use a mouse (or other pointing device) and menu selections to execute equivalent operations. However, some operations may only be available in the Structure Window 110. For example, a user can connect a branch in one area of the flowchart to another part of the flowchart by using a mouse to drag a connector line in the Structure Window 110 since only a single path is visible in the Script Window 120 at one time in this embodiment. Of course, provisions can be made for this functionality to be executed in the Script Window 120 as well.

In yet another alternate embodiment, instead of or in addition to using the Script Window 120 to edit cells, a user can edit the content and/or properties of cells in the flowchart displayed in the Structure Window 110. Accordingly, the Script Window 120 can drive the Structure Window 110 or vice versa. In this way, the designer can build an interactive multimedia experience by editing nodes in the graphical flowchart or textual specifications in a textual view. For example, cells on a selected path can be enlarged to allow a user to easily see the flow of the path and edit the contents of the cells on the flowchart itself. In this way, a user can create a cell in the graphic flowchart view, enter script in the enlarged cell, hit return, and have that cell appear in the textual view of the cell to see the single path flow. As noted above, the cells of the selected path can temporarily align themselves vertically to create the appearance of the Structure Window 120. Additionally, a third display area can be provided for receiving user input, and the application can apply the input received in the third display area to the Structure and Script Windows 110, 120. The third display area can take the form of a "properties window" that displays and allows a user to edit the properties of the cell such as script description, timing properties, and visual display properties.

As noted above, as the user clicks on different nodes in the flowchart, the application shows the currently-selected path in the Script Window 120. Preferably, the application uses the single path selection technique discussed above to "remember" the last selected path leading in to and out of the selected cell. It should be noted, however, that these preferred embodiments can be used without the single path embodiments discussed above. Additionally, any of the alternatives discussed above with respect to path selection can also be used with this preferred embodiment. For example, instead of displaying a textual view, the second display region 120 can display a copy of the flowchart where only the cells in the selected path are visible and the cells that are not on the path are hidden. In this way, the second display region 120 would display a graphical view of one path in the flowchart in isolation. The user can then create or edit cells on this graphical view. Additionally, the cells along a path can be identified in any other manner to allow a user to perceive and edit cells along that path. For example, the cells along a path can be displayed larger than the other cells in the flowchart. Here, the

"second display region" (the display area occupied by these larger cells in the flowchart) is part of the first display region.

In another alternate embodiment, the application can be equipped with various functionality to allow it to facilitate the construction of the media assets scripted by the writer and for providing the programming necessary to fully render the interactive multimedia experience on a given platform. As noted above, cells can contain instructions to play a media asset such as an audio file or a video file. When a writer is scripting the content of the interactive multimedia experience, those media assets may not exist. The application can sort the various pieces of uncreated media based on the talent that is necessary to create the media or on other criteria for sorting. For example, the cells can be divided into music tasks, animation tasks, art tasks, programming tasks, SFX tasks, writing tasks, video tasks, and performance tasks. In this way, artists used to create the media can be assigned a list of tasks that need to be performed. When each of the media assets is created by the artists and inserted into designated "slots" in a database, the application can assemble the completed media for playback. The slots in the database can be created before or after the media assets are created. Because an interactive multimedia experience can have thousands of assets and a non-linear structure, it is preferred that the application maintain a database to track the media assets.

The application can also allow the writer to guide the various artists with annotations as to how the media should be rendered or performed. This process is analogous to a scriptwriter's comments regarding stage directions or other production issues in a play. The application can also produce cue cards that guide the talent in the performance and recording of the media. For other types of media, the writer can create preliminary versions of animations, music, etc. as guides for the creative staff when they are creating final versions. The application can also be used by the talent to record the media. For example, an integrated audio recording tool can be provided that assists the talent and producer in capturing the audio, still images, animation, etc., performing post-processing, and storing the media in an asset database. The audio recording tool can also show the points in the audio that precede and succeed a performance, making it easier for

the performer to ensure seamless transitions. The talent can also enter comments back to the writer regarding issues that might arise in the performance.

Finally, it should be noted that a path can contain additional cells that are determined using techniques in addition to the ones described above. For example, if the techniques described above generate a path that contains an endless loop, the path can be modified to show a path out of the endless loop. As another example, a path can be expanded to include "dead-end" cells that are simultaneously triggered by a cell in a path. These dead-end cells can, for example, play sound effects or animation when a cell on the determined path is played.

The CD-ROM appendix contains a computer program listing for a presently preferred embodiment.

It is intended that the foregoing detailed description be understood as an illustration of selected forms that the invention can take and not as a definition of the invention. It is only the following claims, including all equivalents, that are intended to define the scope of this invention.